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PART I. GENERAL INSTRUCTIONS

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This document is to be used when applying for a permit pursuant to the Site Location of Development Law (Site Law), 38 M.R.S.A. § 481-490. The applicant for a metallic mineral mining or advanced exploration permit should contact the Mining Coordinator (287-2111).

A permit is required of anyone who may "construct or cause to be constructed or operate or cause to be operated or, in the case of a subdivision, sell or lease, offer for sale or lease or cause to be sold or leased, any development requiring approval under this article...." 38 M.R.S.A. § 483-A.

Section 1. Pre-submission. A pre-application meeting, public informational meeting and pre-submission meeting, as described in (A) through (C) of this section, are required unless the development consists of a residential subdivision with 20 or fewer developable lots or is an amendment to an existing development that already has a Site Law permit. In certain circumstances the department may waive the requirement for a pre-application or pre-submission meeting. The public informational meeting requirements may not be waived. See 06-096 CMR 2.6. Subsections D and E below apply to all developments.

A. Pre-application meeting. The purpose of the pre-application meeting is to help the applicant understand the application review process, identify particular areas of concern and exchange information before commitment to a final design. This meeting may lead to a substantial reduction in processing time. For information about arranging a pre-application meeting, contact the appropriate regional office. The address and telephone number of the Augusta office and the two regional offices are listed in Section 2(A).

B. Public informational meeting. An applicant intending to file an application that requires a pre-application meeting must hold a public informational meeting prior to filing that application. A local public hearing process may not be substituted for the public informational meeting. At least 10 days prior to the public informational meeting, notice of the informational meeting must be sent by certified mail to abutters and to the municipal office of the municipality(ies) where the project is located. At least 7 days prior to the informational meeting, notice must also be published once in a newspaper of general circulation in the area where the development is located. The notice must contain at least the following information:

1. Name, address and telephone number of the applicant.
2. Citation of the statutes or rules under which the application will be processed.
3. Location and summary description of the activity.
4. The date, time and place of the public informational meeting.

A certification signed by the applicant attesting that a notice was provided for a public informational meeting, and the meeting was held in accordance with Chapter 2, Section 8, including an estimate of the number of attendees at the meeting, must be submitted with any application that requires a pre-application meeting pursuant to the Chapter 2 rules.

C. Pre-submission meeting. A pre-submission meeting allows the department and applicant to follow up on issues raised at the pre-application meeting and is required for all projects for which a pre-application meeting was held unless waived in writing by the department. The meeting is held when the application is ready for submission. Contact the project manager concerning scheduling.

D. Notice. Provide public notice of the application. Form C, the notice form, is included in Part III of this application. A copy of this form or one containing identical information must be used to notify abutters, municipal officials, and local newspapers. Submission requirements related to this notice requirement are contained in Part II, Section 25 of this application

1. Newspaper. Publish the notice once in a newspaper circulated in the area where the development is located. The notice must appear in the newspaper within 30 days prior to filing a new or amendment application, or a resubmitted application returned as incomplete pursuant to Chapter 2.

2. Abutting property owners. Provide a copy of the notice to the owners of abutting property. Their names and addresses can be obtained from town tax maps or local officials. Abutters must receive notice within 30 days prior to filing a new or amendment application, or a resubmitted application returned as incomplete pursuant to Chapter 2. For the purposes of this application, an abutting property owner means any person who owns property that is both (1) contiguous to and (2) within 1 mile of the location, on which the project will take place, including owners of property directly across a public or private right of way.

3. Municipal or plantation office. Provide a copy of the public notice together with a duplicate of the entire application to the appropriate town clerk, city clerk or, if the development is in an unorganized area, to the appropriate plantation clerk or county clerk. The notice must be received within 30 days prior to filing a new or amendment application, or a resubmitted application returned as incomplete pursuant to Chapter 2.

E. Other

1. Application notes. Direct questions concerning application requirements to the project manager or, if a project manager has not yet been assigned, to the Licensing Coordinator, Division of Land Resource Regulation (287-2111) for projects located in the northern, eastern and central regions or the Licensing Supervisor, Division of Land Resource Regulation (822-6300) for projects located in the southern region.

a. Organization. Organize the application in the following manner.

i. Use a completed copy of Form A, contained in Part III of this application, as the first and second pages of the application.

ii. Place a completed copy of Form B, the Checklist, after the completed copy of Form A.

iii. Organize the submissions into sections as specified in Part II of this application, and identify each section with a tab. If a particular section is not applicable, provide a statement explaining why it is not; do not omit the section unless this application is being used for a project amendment and prior approval has been obtained from the project manager.

NOTE: If you have used a CD to complete this application, please submit one copy of the disk with your written copies.

b. Plan, drawing and map specifications. Plans, drawings and maps may be combined as long as all details are clearly shown. Adhere to the following specifications, unless variations are specifically approved by the department prior to submission of the application:

i. Sheet size 24" X 36".

ii. For developments of less than 100 acres in total area use a scale of 1" = 100'; for developments of more than 100 acres but less that 250 acres in total area use a scale of 1" =200'; and for developments of 250 acres of more in total area, the required scale must be determined by the department.

iii. Maximum vertical exaggeration of 5X.

iv. Folded to fit 8 1/2" by 11" folders for ease in filing.

c. Professional assistance. For most developments requiring a permit, professional assistance is necessary to satisfactorily complete the application requirements. Appropriate professionals must prepare all plans, drawings and maps. All work performed by a professional engineer or other licensed professional must be dated, stamped and signed by the professional. As used in this document, a "certified geologist" or "certified soil scientist", is a professional licensed pursuant to 32 M.R.S.A. § 4901 et. seq. A "registered engineer" is a professional licensed pursuant to 32 M.R.S.A. § 1351 et. seg. A "licensed site evaluator" is a professional licensed under authority established by 22 M.R.S.A. § 42(3-A).

d. NRPA application. If any activities require a permit under the Natural Resources Protection Act (NRPA), 38 M.R.S.A. § 480-A to 480-Z, complete and submit a copy of the appropriate NRPA application and its associated fee with the Site Law application.

e. Retain a copy. Retain a copy of the application, as filed with the department, in order to facilitate communications with the department's staff during the review process.

2. Source material

a. Site Law. Site Location of Development Law, 38 M.R.S.A. § 481-490, with regulations 06-096 CMR 371-377. Available from the Bureau of Land and Water Quality (287-2111).

b. NRPA. Natural Resources Protection Act, 38 M.R.S.A. § 480-A to 480-Z statute and application. Rules (separate handouts): 06-096 CMR 305 (Permit by Rule Standards); 310 (Wetlands Protection); and 355 (Coastal Sand Dune Rules). Available from the Bureau of Land and Water Quality (287-2111).

c. Solid waste. Solid Waste Management Rules, 06-096 CMR 400 et. seq. and Rules for Open Burning, 06-096 CMR 102. Chapters 400 et. seq. is available from the Bureau of Remediation and Waste Management (287-2651). Chapter 102 is available from the Bureau of Air Quality (287-2437).

d. Drinking water rules. Rules Relating to Drinking Water, 10-144A CMR 231. Available from the Department of Human Services, Division of Health Engineering (Drinking Water Program) (287-2070).

e. Hydrology. Soil Conservation Service's TR-55 publication entitled "Urban Hydrology for Small Watersheds" (June 1986); and TR-20 publication entitled "Computer Program for Project Formulation Hydrology" (May 1982).

f. Phosphorus control. Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development (revised 1992). Available from the Bureau of Land and Water Quality (287-3901).

g. Stormwater management. Stormwater Management For Maine: Best Management Practices (November 1995) with addendum (12/12/96); Stormwater Management, Chapter 500, Direct Watersheds of Waterbodies Most at Risk from New Development; and Chapter 502, Sensitive or Threatened Regions or Watersheds. Available from the Bureau of Land and Water Quality (287-3901).

h. Erosion and sedimentation control. Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices (March 1991). Available from the Cumberland County Soil and Water Conservation District, 381 Main Street Suite 3, Gorham, Maine 04038 (839-7842).

i. Blasting. U.S. Department of Interior Rules 30 CFR sections 816.61-68 and 817.610-68, and Blasting Guidance Manual, Office of Surface Mining, Reclamation and Enforcement, U.S. Department of Interior

Section 2. Submission

A. Fees. Attach the appropriate application fee to the original application. The current fee schedule can be obtained from any DEP Regional Office. Send the original application and 2 copies to: Department of Environmental Protection, Bureau of Land and Water Quality, 17 State House Station, Augusta, Maine 04333 (Phone: 207-287-2111 Fax: 207-287-7826). Exception: If the project site is located in an area served by the Bangor Regional Office or the Portland Regional Office, the application may be sent directly to the appropriate regional office. To determine which office should receive the application, consult the map on the following page. Note: Applications for project sites located in the Northern Maine Region should be sent to the Bangor Regional Office.

Portland	Bangor
312 Canco Road	106 Hogan Road
Portland, ME 04103	Bangor, ME 04401
Phone: 207-822-6300	Phone: 207-941-4570
Fax: 207-822-6303	Fax: 207-941-4584

The department operates under a fee system established by the Legislature of the State of Maine. All fees must be paid at the time the application is submitted to the department. Checks should be made payable to: Treasurer, State of Maine.

If claiming that a development qualifies as affordable housing, provide the number of bedrooms/dwelling unit and the not-to-exceed selling/renting price for each unit. This information should appear in Section 3 of the submitted application. See Part II, Section 3(B)(4) of this document.

B. Timing of submission. Submit the application well in advance of the date of construction or offering. The amount of time required for the application review process depends upon the scope of the activity and its environmental impacts, the quality of the application and the current workload of project managers and other staff. The project manager will provide an estimate of the likely processing time. The commissioner establishes processing timetables for each type of new permit or license issued by the department. See 38 M.R.S.A. § 344-B.

C. Correspondence and questions. Correspondence and questions concerning the application should be directed to the project manager. The assigned application number should be included in all correspondence.

INSERT REGIONAL MAP HERE

Section 3. Processing

A. Acceptance review. Upon submission and payment of all applicable fees, the application is given a project number and assigned to a project manager. The project manager determines if the application is complete and acceptable for processing. Once this review is complete,

1. The applicant will receive a notification, including the application number and the project manager's name, stating that the application is acceptable for processing; or

2. The application will be returned with a letter stating that the application is not acceptable for processing as filed and identifying deficiencies in the application.

B. Application review. The project manager makes a recommendation for final action based upon his or her review of the application, including knowledge gained from any site visit(s) and comments received from department staff, other agencies or the public.

1. If the application is determined acceptable for processing, the project manager may request additional copies for use by review agencies such as the Department of Inland Fisheries and Wildlife.

2. Additional information may be requested. "Acceptance of an application as complete for review does not constitute a determination by the department on the sufficiency of that information and does not preclude the department from requesting additional information during processing." 38 M.R.S.A. § 344 (in part).

In review of an application, the burden is on the applicant to prove that the development will not have an adverse environmental impact. It is not up to the department to prove that a development will have an adverse environmental impact.

Section 4. Final action and appeal. Depending on the nature of the development, a final decision on the application may be made either by the Commissioner or the Board of Environmental Protection. A draft copy of the Findings of Fact and Order is made available, upon request, for review by all interested parties at least 5 working days prior to final action by the commissioner, or 15 working days prior to final action by the Board. Persons aggrieved by a decision may appeal the decision within 30 days following final action.

If an application is approved, a permit is issued and sent to the applicant. The applicant must become familiar with any conditions placed on the approved project. Failure to comply with conditions of approval may lead to action by the department’s enforcement staff, including fines and revocation of the permit.

PART II. SUBMISSIONS

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The following sections describe general minimum submissions. Because of the site-specific nature of developments and potential impacts, additional information may be required, on a case-by-case basis, to determine whether the Standards for Development, 38 M.R.S.A. § 484, are met. ***If an applicant is seeking a planning permit for a development under 38 M.R.S.A § 485-A (1-C), the application must contain all the general minimum submissions unless individual sections require different submissions (indicated with bold and italics), specific to a planning permit, or the submissions have been waived by the department at the pre-application meeting.***

Section 1. Development description

A. Narrative. Provide the following.

1. Objectives and details. A description of the overall objectives, development history and development details including, as appropriate, acreage of the parcel; number of lots; average lot size (sq. ft.) excluding undeveloped portions; and area (sq. ft.) of buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not revegetated. If the parcel will include a developed site and a retained area, indicate the acreage of the site to be developed.

2. Existing facilities. A description of existing facilities, if any, together with dates of construction.

B. Topographic map. Provide a U.S.G.S. seven-and-one-half minute topographic map. Indicate the location of the development boundaries on the map and give quadrangle name(s). A clean photocopy is acceptable.

C. Construction plan. Provide a construction plan outlining the anticipated sequence of construction for the major aspects of the development, such as roads, retention basins, sewer lines, seeding or other erosion control measures and pollution abatement measures. Include the approximate dates for start and completion of construction. Take processing times into consideration in setting these dates.

D. Drawings. Provide drawings depicting the following.

1. Development facilities. The location, function, ground area and floor area (if applicable) of all proposed construction and facilities. For each road, specify length and provide a typical cross section.

2. Site work. The nature and extent of site work such as filling, grading, drainage or dredging.

3. Existing facilities. The location, function, ground area and floor area (if applicable) of existing construction and facilities on the parcel.

4. Topography. The pre- and post-development topography of the site using contour intervals of 2 feet or less. As determined by the department, minimum contour intervals of five feet may be acceptable in areas of sustained slopes of twenty percent or greater. The topographic drawing must include all previously existing construction, facilities and lot lines.

a. Larger contours may be approved for large developments of 250 acres or more with relief greater than 200 feet within the developed area of the parcel.

b. The department may require more detailed topographic maps in certain areas of concern, and in those areas where development or structures have been localized within smaller areas of a larger parcel. The department on a case-by-case basis determines the scale of these maps.

Additional plans and figures are required in support of other sections of the application and are described in those sections.

Section 2. Title, right or interest. Provide a complete copy of the deed or a current lease or purchase option as evidence of title, right or interest in the property.

Reference: Regulations for the Processing of Applications, 06-096 CMR 1.4(D).

Section 3. Financial capacity

A. Estimated costs. Specify the estimated total cost of the development and itemize the estimated major expenses, including the projected cost of measures taken to minimize or prevent adverse effects on the environment during construction and operation. The itemization of major costs may include, but not be limited to, the cost of the following activities: land purchase, roads, sewers, structures, water supply, erosion control, pollution abatement and landscaping.

B. Financing. Provide one of the following unless otherwise approved by the department.

1. Letter of commitment to fund. A letter of commitment, acceptable to the department, from a financial institution, governmental agency, or other funding agency indicating a commitment to provide a specified amount of funds, and specifying how those funds will be used.

2. Self-financing

a. Annual report. The most recent corporate annual report indicating availability of liquid assets to finance the development, together with explanatory material interpreting the report; or

b. Bank statement. Copies of bank statements or other evidence indicating availability of funds if the applicant will personally finance the development.

3. Other. If funding is required, but a final commitment of all necessary money cannot be made until all approvals are received and other reasonable conditions are met, provide the following.

a. Cash equity commitment. Cash equity commitment to the development sufficient to demonstrate the applicant's ability to go forward. The department will consider 20 percent equity of the total cost of a development as the normal equity commitment but reserves the right to lower or raise this amount if special circumstances of an individual development warrant it.

b. Financial plan. Financial plan for the remaining financing.

c. Letter. Letter acceptable to the department from an appropriate financial institution indicating an intention to provide financing subject to reasonable conditions of acceptance.

4. Affordable housing information. If the development is to provide affordable housing, include in this section, for each unit or lot to be leased, rented or sold, the number of bedrooms per unit or lot and the not-to-be exceed rental/selling price of each unit/lot. Also include the median income in the county where the development is located, and data to substantiate that a person with that income could obtain a mortgage for a unit at that selling price.

Reference: Financial Capacity Standard of the Site Location Law, 06-096 CMR 373.1.

Section 4. Technical ability. Describe the technical ability of the applicant and consultant(s) to undertake the development. Include the following information.

A. Prior experience. A statement of the applicant's prior experience and appropriate training relating to the nature of the development. Specify prior experience relating to developments that have received permits from the department.

B. Personnel. Resumes or similar documents detailing the experience and qualifications of full-time, permanent or temporary staff contracted with or employed by the applicant who will design, construct, and oversee development including the installation and maintenance of pollution control measures. These parties must be responsible for design and implementation. (This submission requirement does not apply to temporary workers employed by the applicant for the sole purpose of conducting the physical labor, or to the design of activities based on "off-the-shelf" or other standardized or non-copyrighted designs, or adaptations of designs by staff employed at other facilities owned by the applicant.)

References: Financial Capacity Standard of the Site Location Law (Technical Ability to Meet Air and Water Pollution Control Standards), 06-096 CMR 373.2 and Planning Permit, 06-096 CMR 380.

Section 5. Noise

A. Developments producing a minor noise impact. Provide a statement indicating whether the project falls into one of the following categories, or attesting to the minor nature of the anticipated sound impacts of the project, as applicable.

1. Residential developments. The development is solely residential.

2. Certain non-residential subdivisions. The development is a non-residential subdivision without structure(s), office building(s), storage building(s) or golf course(s).

3. Schools and hospitals. The development is a school or hospital.

4. Other developments. The development does not fall within sub-paragraphs (1)-(3), but the applicant seeks to have the development classified as one creating a minor sound impact. Provide the following.

a. Type, source and location of noise. Description of type of noise generated, source(s) of noise and locations of noise sources.

b. Uses, zoning and plans. Map and description of land uses, local zoning and comprehensive plans for area potentially affected by sounds from the development.

c. Protected locations. Descriptions of any protected location near the development.

d. Minor nature of impact. Statement attesting to minor nature of the anticipated sound impact of the development.

e. Demonstration. Demonstration using estimates or examples that the sound from the development will be 5 dBA less than applicable noise limits, including those for quiet areas.

B. Developments potentially producing a major noise impact. Provide a full noise study prepared by a qualified professional including the following.

1. Baseline

a. Uses, zoning and plans. Maps and description of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the development.

b. Protected locations. Descriptions of the protected locations near the development.

c. Quiet area. Evidence concerning whether or not the area surrounding the development is a quiet area.

2. Noise generated by the development

a. Type, source and location of noise. A description of all types of noise to be generated, sources of noise and locations of noise sources.

b. Sound levels. A description of the daytime and nighttime sound levels expected at property lines and protected locations for all types of sound generated.

c. Control measures. A description of proposed sound control measures, locations and expected performance.

d. Comparison with regulatory limits. A comparison of expected sound levels with sound level limits in regulations.

e. Comparison with local limits. A comparison of expected sound levels with any quantifiable noise standards of any affected municipality.

Note: See Section 20 if blasting is proposed.

Reference: No Adverse Environmental Effect Standard of the Site Location Law (Control of Noise), 096 CMR 375.10.

Section 6. Visual quality and scenic character. Provide a narrative describing the provisions to be made in designing the development to minimize the development's visual impact to the surrounding area. Include a description of what efforts will be made to preserve any existing elements of the site that contribute to the maintenance of scenic character. If the development impacts areas of significant scenic character, the department may require submittal of a Visual Impact Analysis prepared by a qualified professional.

Reference: No Adverse Environmental Effect Standard of the Site Location of Development Law (No Unreasonable Effect on Scenic Character), 06-096 CMR 375.14.

Section 7. Wildlife and fisheries. Contact the appropriate regional office of the Department of Inland Fisheries and Wildlife for assistance in determining potential fisheries and wildlife habitat impacts that could result from the proposed development. Submit a plan to minimize the development's detrimental effect on wildlife and fisheries habitat located on or adjacent to the project site.

References: No Adverse Environmental Effect Standard of the Site Location of Development Law (Protection of Wildlife and Fisheries), 06-096 CMR 375.15 and Planning Permit 06-096 CMR 380.

Section 8. Historic sites. Submit information demonstrating that the proposed development will not adversely affect any historic sites, historic structures or archaeological sites. The Maine Historic Preservation Commission (287-2132) may be able to provide assistance in identifying these sites. The applicant must submit historical and archeological surveys if required by the department.

References: No Adverse Environmental Effect Standard of the Site Location Law (Preservation of Historic Sites), 06-096 CMR 375.11 and Planning Permit 06-096 CMR 380.

Section 9. Unusual natural areas. Submit information demonstrating that the proposed development will not adversely affect an unusual natural area. Include a description of appropriate buffers or other measures that will be taken to protect unusual natural areas located on the project site. The Natural Areas Program (287-8044) may be able to provide assistance in identifying these areas. The applicant must submit a survey for the presence of unusual natural areas if required by the department.

References: No Adverse Environmental Effect Standard of the Site Location of Development Law (Preservation of Unusual Natural Areas)), 06-096 CMR 375.12 and Planning Permit 06-096 CMR 380.

Section 10. Buffers. Provide a narrative and drawing describing proposed buffer strips, including information on dimensions; clearing limits for natural buffers; planting specifications for new buffers; and identification of the person(s) (name, address and phone number) responsible for maintenance. State whether or not the buffers will be retained by the applicant. If the applicant will not retain buffers, provide evidence that the buffers will be protected in perpetuity. If planting is proposed, provide a schedule for completion of the planting using a time frame relative to the issuance of the permit.

Reference: No Adverse Environmental Effect Standard of the Site Location Law, (Buffer Strips), 06-096 CMR 375.9; (Protection of Wildlife and Fisheries), 06-096 CMR 375.15.

Section 11. Soils

A. Soil survey map and report. Provide a soil survey report prepared by a certified soil scientist, including a soil investigation narrative, a soil survey map of the site at the appropriate intensity, complete test pit logs and a soil condition summary sheet. Use copies of Forms E and F, Part III. Soil surveys must comply with the Maine Association of Professional Soil Scientists' Standards for Soil Surveys. The soil survey report must describe limitations of the soils with respect to the proposed development.

The Bureau of Land and Water Quality, in cooperation with the Maine Association of Professional Soil Scientists has established several classes of soil mapping intensity levels. Each class of soil mapping, and the classes, at which various types of developments must be mapped, is outlined as follows.

1. Class A (High Intensity) Soil Survey.

   a. Area used for land application of wastewater. Specific land area within any development proposed to be used for disposal of effluent, wastewater or other wastes.

   b. Subdivisions with any lot less than 2 acres and on-site subsurface wastewater disposal. Residential and commercial subdivisions where any lot is less than 2 acres and on-site subsurface wastewater disposal is proposed. A waiver from this mapping requirement to allow a Class C or D survey may be granted, at the department's discretion, for the undeveloped portion of any individual lot greater than 5 acres and for the undeveloped areas of clustered subdivisions.

2. Class B (High Intensity) Soil Survey

   a. Subdivisions with any lot less than 2 acres. Residential and commercial subdivisions where any lot is less than 2 acres. A waiver from this mapping requirement to allow a Class C or D survey may be granted, at the department's discretion, for the undeveloped portion of any individual lot greater than 5 acres and for the undeveloped areas of clustered subdivisions.

   b. Condominiums. The land area of a condominium development that is to be disturbed during construction. Condominium developments include single or multi-family attached dwellings.

   c. Shopping centers or similar developments. Shopping centers or similar commercial, industrial or institutional developments where large areas are to be utilized or disturbed.

3. Class C (Medium High-Intensity) Soil Survey

   a. Subdivisions with all lots greater than 2 acres and on-site subsurface wastewater disposal. Residential and commercial subdivisions where all lots are greater than 2 acres and on-site subsurface wastewater disposal is proposed.

   b. Multi-use recreational developments with green space. Golf courses, ski areas and trails, campgrounds and other multi-use recreational developments where large areas of green space are to be created or preserved.

   c. Development requiring hydrogeologic investigation. Any development, which the department has determined, will require a hydrogeologic investigation.

4. Class D (Medium Intensity) Soil Survey. All other developments.

These standards are a minimum. The department may request the preparation of a higher intensity soil map or require more detailed hydric soil boundary delineation as conditions warrant. All soil maps, with the exception of U.S. Natural Resources Conservation Service Soil Surveys, must be prepared, signed, stamped and dated by a certified soil scientist. Soil survey maps must include (in addition to soil mapping units) a soil legend, identification of the intensity level of soil survey conducted, reference to the accompanying soil narrative report by title and date and a light overlay of the development design.

B. Geotechnical investigation. If proposed buildings, facilities, or infrastructure require a geotechnical investigation for their design and construction, or a geotechnical investigation is determined to be necessary by the department, provide a report of this investigation prepared and endorsed by a registered professional engineer and other licensed professionals, as appropriate. (For example, a Certified Soil Scientist must prepare soil identifications and descriptions, and a Certified Geologist must endorse interpretations of geologic conditions. This report should identify all major limitations to the development posed by existing soils and other surface and subsurface features of the site, and describe the techniques to be used to overcome these limitations. Depending on the nature of the proposed development, the requirement for a soil survey map and report may be waived if the department determines that the geotechnical report will provide sufficient information.

C. Hydric soils mapping. The limits of all hydric soils must be clearly identified on the soil survey map. Regardless of the mapping class required under Subsection A, all wetlands, of whatever size, must be mapped and shown on the site plans. Refer to the Natural Resources Protection Act Application for more information regarding wetlands mapping.

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Reference: Soil Types and Erosion Standard of the Site Location Law (Suitable Soil Types and No Unreasonable Erosion, 096 CMR 376.

Section 12. Stormwater management.

A. Narrative. Provide a narrative describing pre-development and post-development site conditions and the estimated effects of post-development site runoff on peak discharge rates, flooding and water quality. Include the following information in the narrative.

1. Development location. The general location and orientation of the development within the watershed(s).

2. Surface water on or abutting the site. All lakes, rivers, streams, brooks and wetlands on or abutting the site.

3. Downstream ponds and lakes. All downstream ponds and lakes that may be affected by site runoff. Identify whether each affected pond or lake is in a watershed most at risk from development or a sensitive or threatened region or watershed.

4. General topography. A description of whether the terrain is flat, gently rolling, hilly or steep.

5. Flooding. A list of areas, buildings and facilities that historically flood or could be affected by site runoff. This includes off-site as well as on-site areas, buildings or facilities.

6. Alterations to natural drainage ways. Any proposed changes in alignment and channel geometry.

7. Alterations to land cover. A description of how the development will change the existing land covers.

8. Modeling assumptions. Assumptions used to determine runoff curve numbers, times of concentration and travel times for each pre-development and post-development subwatershed. ***An applicant seeking a planning permit must clearly state in the narrative the maximum amount of impervious surface, regrading and altered cover type in each post-development subwatershed to be included under the planning permit.***

9. Water quantity control. Change in peak runoff flow rates for the site and the methods, if any, that will be used on the site to reduce any increases in peak flow rates, flooding extent or flooding frequency. ***An applicant seeking a planning permit need only state the maximum potential increase in runoff for the development. Discussion of the specific quantity control methods to be used on the site may be delayed until plans for development within specific subwatersheds are more complete.***

10. Water quality treatment. A discussion of the stormwater quality treatment practices that will be used on the site to reduce the impacts of site runoff on downstream water quality. ***An applicant seeking a planning permit need only state which types of treatment facilities are suitable for the development and demonstrate that adequate land area will be set aside for their installation or, in the case of treatment buffers, their preservation. Discussion of the specific quality control methods to be used on the site may be delayed until plans for development within specific subwatersheds are more complete.***

11. Offset credits. A discussion of any total suspended solids (TSS) offset credits or phosphorus offset credits that will be applied to the development.

12. Compensation fees. A discussion of the use of a compensation fee to offset all or a portion of the phosphorus removal necessary to meet the site's phosphorus allocation.

13. Development impacts. An overall assessment of the development's impacts on receiving waters, adjacent properties, downstream properties and downstream flow control structures.

B. Map. Provide the following maps.

1. Topographic map. A United States Geological Survey seven-and-one-half minute topographic map showing the site boundaries. A clean photocopy of the relevant area is acceptable.

2. Soils map. A Soil Conservation Service Medium Intensity Soil Survey Map showing the site boundaries. A clean photocopy of the relevant area is acceptable.

C. Drainage plans. Provide scaled site plans, one for the pre-development site and one for the post-development site, showing the following information, as applicable. ***An applicant seeking a planning permit may choose not to submit a post-development site plan. Post-development plans may be submitted when development plans for specific subwatersheds are more complete.***

1. Contours. Contour intervals as specified in Part II, Section 1(D)(4).

2. Plan elements. Legend, north arrow, title block, revisions block and areas for professional stamps.

3. Land cover types and boundaries. Cover types as defined by the chosen stormwater model.

4. Soil group boundaries. Boundaries of the hydrologic soil groups on the site.

5. Stormwater quantity subwatershed boundaries. Drainage boundary of each stormwater quantity subwatershed on the site. For the purposes of stormwater quantity, a subwatershed is any area that has a unique time of concentration to a specific point of interest. Subwatersheds may not always be contained within the property boundary.

6. Stormwater quality subwatershed boundaries. Drainage boundary of each stormwater quality subwatershed on the site. For the purposes of stormwater quality, a subwatershed is an area that drains to a specific stream, river or lake. It may be possible that the site will only have one stormwater quality subwatershed.

7. Watershed analysis points. Analysis points used in the runoff model for determining the peak flow rates from the site.

8. Hydrologic flow lines. Flow lines for determining times of concentration and travel times. For each flow line, indicate the flow type (sheet, shallow-concentrated or channel flow) and the flow length.

9. Runoff storage areas. Areas (depressions, wetlands, ponds, etc.) functioning to detain, retain or infiltrate runoff.

10. Roads and drives. State routes, town roads, private drives and unimproved roads on or bordering the site.

11. Facilities. Buildings, parking lots and facilities.

12. Drainage systems. Culverts, catch basins, storm sewers and outfalls.

13. Natural and man-made drainage ways. Any streams, brooks, swales, road ditches and other open drainage channels.

14. Wetlands. All on-site wetlands.

15. Flooded Areas. All areas currently flooded due to runoff from the 2-year, 10-year and 25-year, 24-hour storms.

16. Benchmark. The location of at least one permanent elevation benchmark on the site.

17. Stormwater detention, retention and infiltration facilities. The location of each facility and the drainage boundary for the area draining to each facility.

18. Stormwater treatment facilities. The location of each treatment measure and the drainage boundary for the area draining to each measure.

19. Drainage easements. Boundaries of any on-site and off-site drainage easements that are designated as part of the stormwater management system.

D. Runoff analysis. Provide pre- and post-development stormwater analyses of the site, in accordance with acceptable engineering practice, as provided at Chapter 500.6(A)(3). At a minimum, the site runoff analyses must include the following information.

1. Curve number computations. Computations for determining the curve number for each pre-development and post-development subwatershed.

2. Time of concentration calculations. Calculations for determining the time of concentration for each pre-development and post-development subwatershed.

3. Travel time calculations. Calculations used to determine the travel time through each pre-development and post-development subwatershed or identified reach.

4. Peak discharge calculations. Calculations used to determine the peak discharge for each pre-development and post-development subwatershed, reach, and watershed reservoir for 24-hour storms of 2-year, 10-year and 25-year frequencies. ***An applicant seeking a planning permit need only determine the maximum potential runoff for the post-development conditions, not the actual increase in runoff.***

5. Reservoir routing calculations. Provide the calculations used to route stormwater through any ponds, basins or other areas which store and release runoff. ***An applicant seeking a planning permit may choose to only submit reservoir routing calculations for existing storage areas. Calculations for needed detention ponds, infiltration basins or other post-development storage areas may be delayed until development plans for specific subwatersheds are more complete.***

E. Stormwater quantity control plan. Provide a stormwater quantity management plan for the site. The stormwater quantity management plan must provide for detention, retention or infiltration of stormwater from 24-hour storms of 2-year, 10-year and 25-year frequencies such that the peak flow of the stormwater from the developed site does not exceed the peak flow of stormwater from the site prior to construction of the project. Also, the project may not increase the peak flow of any receiving waters as the result of runoff from the site for 24-hour storms of 2-year, 10-year and 25-year frequencies. In municipalities with 100-year flood elevations, the site runoff may not adversely affect the designated 100-year flood elevation. See 06-096 CMR 375.4. ***An applicant seeking a planning permit may delay submission of the stormwater quantity control plan until the development plans for specific subwatersheds are more complete. Adequate stormwater quantity management must be provided for all specified development on the parcel. The department must approve the specific stormwater management measures for any subwatershed before any activity under the planning permit begins in that subwatershed.***

1. Variance submissions. The department may grant a variance from the peak flow standard outlined above for the three cases listed below. In each case, the applicant must submit information demonstrating that the project meets the requirements of the variance. Granting of a stormwater quantity variance does not grant a variance from the requirement to provide adequate stormwater quality treatment, as required by Chapter 500.4 or 38 M.R.S.A. § 413.

a. Discharge to the ocean, a great pond or a major river segment. See Chapter 500.3(A)(1). Provide the following information:

i. Map. A map showing the project location and the ocean, great pond or river segment to which stormwater will be discharged.

ii. Drainage plan. A scaled plan showing the path by which stormwater will reach the ocean, great pond or river segment.

iii. Drainage system design. Designs and calculations for the pipes or man-made channels showing that they can convey the calculated runoff peaks without eroding or overloading.

iv. Outfall design. Designs and calculations showing that the stormwater outfall at the resource is properly sized and stabilized for the calculated flow rates and outfall conditions.

v. Easements. Evidence that drainage easements have been obtained on any downstream properties, not owned by the applicant, that site runoff must flow across to reach the ocean, great pond, or river segment.

b. Discharge to a buffer. See Chapter 500.3(A)(2). Provide the following information.

i. Road and buffer plan. Provide a scaled plan showing all treatment buffers, ditches (if any), ditch turnouts (if any) and other BMPs discharging stormwater to buffers. For each buffer indicate on the plan the buffer's length and cover type (wooded or non-wooded).

ii. Designs and calculations. Typical design(s) for any ditch turnouts, level spreaders, and other BMPs discharging stormwater to buffers and the calculations used to determine their spacing along the road.

iii. Buffer Preservation. For each buffer provide completed or draft deed restrictions or conservation easements that will preserve the buffers in a wooded state or, for a non-wooded buffer, in a vegetated state. Forms H1, H2 and H3, Part III contains suggested language for deed restrictions. Form I, Part III contains suggested language for conservation easements.

c. Discharge to a public stormwater system. See Chapter 500.3(A)(3). Provide the following information.

i. Letter of permission. Letter from the municipality or public utility stating that runoff from the project may be discharged to the public stormwater system.

ii. Proof of capacity. Calculations demonstrating that the public stormwater system has the capacity to accommodate the change in flow from the project.

iii. Outfall analysis. Provide calculations demonstrating the existing storm sewer outfall is capable of withstanding the new flow volumes and discharge velocity without eroding.

The granting of a variance does not eliminate all submission requirements for the stormwater quantity control plan. It only grants a variance to providing detention, retention, or infiltration for stormwater quantity control on the site. The applicant must still submit drainage system sizing calculations and easement declarations showing that runoff from the site can be safely conveyed and discharged in accordance with the variance requirements.

2. Drainage system sizing. Provide calculations for sizing and stabilizing on-site runoff conveyance structures, including catch basins, storm sewer pipes, culverts, vegetated channels, lined channels, roof drains and level spreaders. Include a detail sheet showing scaled drawings and cross-sections of runoff conveyances, structures and associated practices such as inlet and outlet protection, as appropriate.

3. Submissions for stormwater basins and ponds. Design detention and retention basins in accordance with accepted professional engineering practice. The following submissions, as applicable, are required for each detention basin, wet pond, infiltration basin:

a. Impoundment sizing calculations. Runoff calculations, stage-storage curves and storage volume calculations for sizing the basin or pond.

b. Inlet calculations. Calculations for sizing and stabilizing the inlet structure to the basin or pond.

c. Outlet calculations. Calculations for sizing and stabilizing the outlet structure from the basin or pond. Design the outlets to control 24-hour storms of 2-year, 10-year and 25-year frequencies without the emergency spillway being activated. The outlet must discharge to an area receiving concentrated flow in the pre-development conditions or discharge must be converted to sheet flow using a properly sized level spreader.

d. Emergency spillway calculations. Calculations for sizing and stabilizing the basin's or pond's emergency spillway. Design the spillway to independently convey the basin-routed runoff from a 25-year, 24-hour storm while maintaining one foot of freeboard between the water surface in the basin and the top of the embankment.

e. Subsurface investigation report. A brief discussion of the subsurface conditions and the supporting test-pit or boring logs for any areas on which a water impoundment embankment will be built.

f. Embankment specifications. Construction and material specifications for constructing any earthen embankments, including core fill specifications, shell fill specifications, compaction specifications and specifications for foundation preparation.

g. Embankment seepage control designs. Designs and supporting calculations for controls used to limit seepage under or through the earthen embankment.

h. Outlet seepage control designs. Designs and supporting calculations for controls used to control seepage along any pipe outlets through the embankment.

i. Detail sheet. A detail sheet showing plan and cross-sectional views of the outlet structure, emergency spillway, inlet protection structure, outlet protection structure, pipe seepage controls and embankment seepage controls.

j. Basin cross-sections. Scaled cross-sections through the embankment showing the grade of the upstream face, the grade of the downstream face, the crest width, the elevation of the embankment's crest, the elevation of the basin's floor, the elevation of the emergency spillway's crest and the peak storage elevations in the basin due to runoff from the 2-year, 10-year and 25-year, 24-hour storms.

k. Basin plan sheet. A scaled plan view of the pond showing the location of the inlet, outlet, emergency spillway, associated riprap areas and any other details necessary for constructing the basin.

4. Infiltration system submissions. If infiltration systems are proposed, submit the following.

a. Well location map. A figure showing the location of all public water supply wells within 2,500 feet of the proposed infiltration area and all private water supply wells within 300 feet of the proposed infiltration area. Identify on this figure the wellhead protection areas around each community public water supply well and each non-community, non-transient public water supply well.

b. Sand and gravel aquifer map. Section of the most recent Significant Sand and Gravel Aquifer Map showing the location of the proposed infiltration area. Clean photocopies are acceptable.

c. Subsurface investigation report. Test pits, borings or other subsurface investigations to determine the geology and water table elevations in the area of the proposed infiltration

structure. Subsurface investigations should extend to a depth at least five feet below the bottom of the area to locate bedrock, restrictive layers or other features which could reduce the infiltration capacity of the structure.

d. Permeability analyses. Measurements of the permeability of the soils proposed for the infiltration area. If possible, permeability should be measured in the soil materials at the depth proposed for the bottom and sides of the structure.

e. Structure designs. Plan views, cross-sections and suitable details of the structure including runoff storage areas; overflow controls; specifications for filter fabric, fill and other materials used in construction; specifications for observation wells; and other information required for construction. The plan view must also show setbacks from foundations, basements, wastewater disposal fields, drinking water supply wells and surface water bodies, as applicable.

f. Pollutant analyses. If any part of the infiltration system is located within a wellhead protection zone, provide a specific analysis of the likely pollutants found in runoff from the areas contributing runoff to the infiltration system and identify the specific measures used to prevent those pollutants from reaching groundwater.

g. Monitoring and operations plan. Submit the following information about the maintenance of the infiltration system.

i. Locations of storage points of potential contaminants. A plan showing the locations of all storage points of potential groundwater contaminants including, but not limited to: petroleum products, fertilizers and pesticides, material stockpiles and sand - salt storage areas. This plan may be combined with the post-development drainage plan required by Subsection C above. For those products that will be used on-site, indicate the area(s) of usage and estimate the intended rates if those areas drain to the infiltration area.

ii. Locations of observations wells; monitoring. A figure showing locations of groundwater elevation observation wells and a program for monitoring groundwater elevation to evaluate the effects of mounding and the performance of the system.

iii. Wellhead protection, or significant sand and gravel aquifer area; monitoring. For infiltration areas located within wellhead protection areas and on significant sand and gravel aquifers or recharge areas, in addition to the submissions listed in (ii), submit a plan for quarterly monitoring of groundwater quality upgradient and downgradient of the proposed infiltration area.

5. Easements. Submit a list of all on-site and off-site drainage easements designated as components of the site's stormwater management system.

Reference. No Adverse Effect Standard Effect Standard of the Site Location Law (No Unreasonable Effect on Runoff/Infiltration Relationships), 06-096 375.3 and 375.4, Planning Permit, 06-096 CMR 380 and Chapters 500 and 502.

G. Stormwater quality treatment plan. Provide a stormwater quality treatment plan for the site. The stormwater quality treatment plan must meet the applicable standards in Chapter 500. ***An applicant seeking a planning permit may delay submission of the treatment plan until the specific plans for development within specific subwatersheds are more complete. Adequate stormwater quality treatment must be provided for all specified development on the parcel. The department must approve the specific stormwater management measures for any subwatershed before any activity under the planning permit begins in that subwatershed.***

1. Basic stabilization. The basic stabilization measures standard is described at Chapter 500.4(A)(2)(d). If required to meet this standard, submit the following.

   a. Ditches, swales, and other open stormwater channels. Designs and calculations for sizing and stabilizing ditches, swales and other on-site stormwater conveyance structures.

   b. Culvert and storm-drain outfalls. Designs and calculations for sizing and stabilizing culverts and outfalls based on anticipated flows and tail-water conditions.

   c. Earthen slopes and embankments. Details and specifications for stabilizing steep or long slopes. Address seepage, stability and erosion control in the design.

   d. Disturbed areas. Specifications for revegetating, paving or permanently mulching disturbed areas.

   e. Gravel roads and drives. Cross-sections showing travel width and crown, ditching or water bars, if proposed. Provide specifications for the base, the subbase and the surface materials. Describe the measures to be used to ensure that stormwater drains immediately off the roads and road shoulders to adjacent buffer areas or stable ditches and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder.

   The stabilization measures must use accepted erosion and sedimentation best management practices that achieve long-term erosion and sedimentation control. The department encourages the applicant to meet the requirements of this standard by utilizing the siting, design and maintenance guidelines in the *Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices* produced jointly by the Cumberland County Soil and Water Conservation District and the department. The department may approve other practices on a case-by-case basis.

2. 80% TSS removal. The 80% TSS removal standard is described at Chapter 500.4(A)(2)(a). If required to meet this standard, submit the items as required under Subsection F (5), under Subsection F (6) and the following.

   a. Calculations for determining the TSS removal achieved for the site. The TSS removal achieved is based on the treatment measures employed to reduce the TSS content in the runoff, the amount of impervious area runoff treated by these measures, and the effects of any TSS offset credits. Provide calculations showing how the combination of stormwater quality BMPs on the site will achieve the required TSS removal for each stormwater quality subwatershed. The department encourages the applicant to use the methods and worksheets in Chapter 5 and Appendix F of the Maine DEP's *Stormwater Management for Maine: Best Management Practices* to determine the overall treatment level for each subwatershed.

3. Sliding scale TSS removal. The sliding scale TSS removal standard is described at Chapter 500.4(A)(2)(b). If required to meet this standard, submit the items as required under Subsection F (5), under Subsection F (6) and the following.

   a. Impervious area calculation. Calculations used to determine the percent impervious area for each subwatershed on the site.

b. Determination of the TSS removal required. Percent TSS removal needed for each subwatershed on the site, as determined from the graph at Chapter 500.4(A)(2)(b) or the table at Chapter 500, Appendix A.

c. Calculations for determining the TSS removal achieved for the site. The TSS removal achieved is based on the treatment measures employed to reduce the TSS content in the runoff, the amount of impervious area runoff treated by these measures, and the effects of any TSS offset credits. Provide calculations showing how the combination of stormwater quality BMPs on the site will achieve the required TSS removal for each stormwater quality subwatershed. The department encourages the applicant to use the methods and worksheets in Chapter 5 and Appendix F of the Maine DEP's *stormwater Management for Maine: Best Management Practices* to determine the overall treatment level for each subwatershed.

4. Phosphorus removal. The phosphorus standard is described at Chapter 500.4(A)(2)(c). If required to meet this standard, submit the items as required under Subsection F (5), under Subsection F (6) and the following.

The department encourages the applicant to use the methods presented in the department manual *Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development* for designing and implementing a phosphorus control plan. Other methods not yet accepted will be reviewed individually.

a. Calculations for determining the site's allowable phosphorus export Default per acre phosphorus allocations used in determining the allowable phosphorus export for most at risk watersheds are available from the department's Division of Watershed Management (287-3901). The applicant may propose an alternative allocation for the watershed.

b. Calculations for determining the post-development phosphorus export. The post-development export is based on the extent of the developed area, the cover-type(s) of the developed areas, the treatment measures employed to reduce the phosphorus content in the runoff and the export reduction from any phosphorus offset credits.

c. Calculations for determining the compensation fee. For those developments whose post-development phosphorus export exceeds the allowable export, provide a calculation for the compensation fee. Determine the excess phosphorus export to be accounted for through compensation by subtracting the allowable phosphorus export from the post-project phosphorus export. Calculate the appropriate fee at a rate of $10,000 per pound of excess phosphorus. If payment of a compensation fee is approved, the payment must be received prior to issuance of a department order.

5. Offset Credits. The offset credit allowance is described in Chapter 500.5

a. TSS credit determination. If proposing to use the TSS offset credit described at Chapter 500.5(A)(1), provide the following information.

i. Location map. A topographic map showing the location of the off-site area(s) where impervious area will be reduced or eliminated.

ii. Scaled plan. A plan at a scale of one inch = 200 feet or another scale approved in writing by the department showing the off-site area(s), impervious area(s) to be revegetated to woods (if any) and impervious area(s) to be revegetated to lawn or other non-forested condition (if any).

iii. Title and right. Documents (deed, legal agreement, etc.) which allow the applicant to reduce or eliminate the off-site impervious area.

iv. Demolition plan. A demolition schedule and debris disposal plan for removing the impervious surfaces.

v. Vegetation plan. A plan for revegetating the off-site area. If the applicant will claim a TSS credit by changing impervious area to a non-forested area, this plan must include specifications for applying topsoil, seed, fertilizer, lime, mulch and mulch anchoring. If the applicant will claim a TSS credit by changing impervious area to woods, this plan must also include specifications for tree planting.

vi. Offset credit calculation. Use one of the following equations, as applicable (The offset credit formula at Chapter 500.5(A)(1) contains a typographical error resulting in a negative function; it is suggested that the formula in this application be used to calculate offset credit).

2:1 Credit Rate
Offset Credit = 1.0 – {((0.5 x off-site impervious area) x (1.0 – offset BMP TSS removal efficiency)) ÷ new impervious area}

1:1 Credit Rate
Offset Credit = 1.0 x {(off-site impervious acres x (1.0 – offset BMP TSS removal efficiency)) ÷ new impervious area}

If using the 1:1 credit rate, provide evidence that the offset area is likely to export at least as much TSS on an areal basis as the proposed site.

vii. New treatment level calculation. Determine the new %TSS removal for each subwatershed. If the 80% TSS removal standard is required for the development, then the new TSS removal required is found using the following equation:

New %TSS removal level = (offset credit x 40%) + 40%

If the sliding scale TSS standard is required for the development, then the new TSS removal required if found using the following equation:

New %TSS removal level = {offset credit x (required treatment –40%)} + 40%

The new %TSS removal level is the level of treatment that on-site BMPs must achieve in the stormwater quality subwatershed. This new %TSS removal level, however, may not be less than 40%.

b. Phosphorus credit determination. If proposing to use the phosphorus offset credit described at Chapter 500.5(A)(2), provide the following information.

i. Location map; scaled plan; title and right; demolition plan; and vegetation plan. Provide information as required under Subsections F (5)(a)(i-v).

ii. Offset credit calculation. Use one of the following equations, as applicable.

2:1 Credit Rate
Phosphorus Offset Credit = 0.5 x (export from existing impervious off-site area - export from eliminated or reduced off-site area)

1:1 Credit Rate
Phosphorus Offset Credit = 1.0 x (export from existing impervious off-site area - export from eliminated or reduced off-site area)

If using the 1:1 credit rate, provide evidence that the offset area is likely to export at least as much phosphorus on an areal basis as the proposed site.

iii. Calculation for new allowable export. Use the following equation.

New Allowable Phosphorus Export = Old Allowable Phosphorus Export + Phosphorus Offset Credit

The new allowable phosphorus export is the maximum amount of available phosphorus that can be exported from the on-site project.

6. Runoff Treatment Measures. Design, siting and selection guidance for best management practices (BMPS) used to treat runoff are given in the Maine DEP's *Stormwater Management for Maine: Best Management Practices*.

a. Structural Measures. Structural measures include all stormwater quality BMPs except vegetated buffers. Proprietary treatment devices purchased from a manufacturer are also included among the structural measures. For each structural measure, submit the following information.

i. Design drawings and specifications. Design drawings, material specifications and construction specifications for each structural, stormwater quality BMP to be installed on the site. The drawings should be sufficiently detailed to allow a contractor unfamiliar with stormwater quality BMPs to construct and install the BMP.

ii. Design Calculations. Provide design calculations for each stormwater quality BMP to be installed on the site. These must include calculations for determining flow rates and volumes to the BMP, sizing the inlet structure, determining storage capacity, determining hydraulic stability within the structure, verifying maximum drawdown times, sizing outlet controls and any other calculations necessary to show that the BMP will remove the desired pollutant load and still remain functional in accordance with its maintenance plan. The department encourages the applicant to use the "design criteria" provided for each BMP in Chapter 6 of the Maine DEP's *Stormwater Management for Maine: Best Management Practices* to determine what calculations are needed for the department's design review.

iii. Maintenance Plan. Provide a maintenance plan for each stormwater quality BMP as part of the submission requirements outlined in Section 13.

iv. TSS removal efficiency or phosphorus treatment factor determinations. Provide the rationale and any supporting calculations for determining the TSS removal efficiency for each stormwater quality BMP or the phosphorus treatment factor for each BMP. The TSS removal efficiency represents the percent removal of total suspended solids on an annual basis, given the BMP's design the site's storm hydrology and the project's land management. The phosphorus treatment factor represents the percent phosphorus remaining in the runoff on an annual load basis after treatment with the BMP, given the BMP's design, the site's storm hydrology and the project's land management.

v. Stabilization plan. Provide a stabilization plan for each BMP. This may be included as part of the basic stabilization plan in Subsection F (1). Each BMP must be stabilized before runoff is diverted into it from the site. If a wet pond or impoundment with a permanent pool will be built on marine or lacustrine sediments, submit specifications for stabilizing these soils to prevent the suspension of silt and clay during storm events.

b. Vegetated buffers. For each vegetated buffer used for TSS or phosphorus control submit the following information.

i. Soil survey. At a minimum, a class D (medium intensity) soil survey map will be necessary to substantiate the soil type of any area proposed as a buffer. The department will allow the use of higher removal efficiencies, however, if a soil scientist verifies the soil type and depth to limiting factor in the proposed buffer area using test pit data.

ii. Buffer plan. Show the location of each buffer on the post-development drainage plan and give the buffer's width, area, soil group, cover type and slope. If a test pit was used to verify the buffer's soil group and limiting factor, show the location of this test pit on the post-development drainage plan or the soils plan submitted as part of the requirements for Section 11.

iii. Turnout and level spreader designs. If ditch turnouts or level spreaders will be used to spread runoff into a treatment buffer, provide design details and supporting calculations for the turnouts and spreaders. Turnouts and level spreaders must be designed and sited to utilize the entire buffer area designated on the drainage plans.

iv. Deed restriction. For each buffer, provide a deed restriction establishing the location of each buffer and any restrictions on vegetation management within the buffer. Forms H1, H2 and H3, Part III contain suggested language for buffer deed restrictions.

7. Control plan for thermal impacts. For developments which discharge to a coldwater fishery, submit a stormwater management plan that indicates how an unreasonable thermal impact to the fishery will be avoided. Thermal impacts may require modifying outlet designs for treatment and quantity control BMPs; changing the siting or orientation of proposed ponds and basins; limiting the impervious area on-site; limiting the use of riprap on channels, slopes and outfalls; maintaining additional natural buffers; and planting trees and shrubs to shade drainage channels, ponds and impervious surfaces.

8. Control plan for other pollutants. The department may require additional stormwater quality controls if it determines they are necessary to avoid an unreasonable impact on any wetland or waterbody due to pollutants other than phosphorus, total suspended solids and thermal heating. The need for additional plans, designs and calculations will be determined by the department on a case by case basis based on such factors as the size, nature and intensity of the development, characteristics of the resources affected, the topography of the site and the nature of the on-site soils.

References: No Adverse Effect Standard of the Site Location Law (No Unreasonable Effect on Surface Water Quality) 06-096 CMR 375.6, Planning Permit, 06-096 CMR 380 and Chapters 500 and 502.

Section 13. Inspection and maintenance of facilities or property. Provide a written plan for the protection and maintenance of the development's stormwater drainage system, stormwater treatment measures, roadways, parking areas, and permanent erosion controls.

A. Components of the maintenance plan. At a minimum, the inspection and maintenance plan must accomplish the following objectives.

1. Identifies the person responsible for implementing the maintenance plan. Give the name, address, and telephone number of the person responsible for ensuring that maintenance is completed in a timely manner. If the name of the person is unknown, give the title of the person who will have the ultimate responsibility (e.g. the store manager, the homeowner association president, or the public works director).

2. Specifies the transfer mechanism. State the specific conditions upon which the facilities will be transferred from the contractor(s) to the owner. If a homeowners association will assume the maintenance responsibilities, state the specific conditions upon which the responsibility or the facilities will be transferred from the owner to the association. If a municipality or municipal district will assume the maintenance responsibilities, state the specific conditions upon which the responsibilities or the facilities will be transferred from the developer to the municipal or district authority.

3. Describes the facilities to be maintained. List the facilities to be maintained, including stormwater ponds, basins, ditches, catch basins, culverts, outlet protection, level spreaders, roadways, parking lots, buffers, and runoff treatment measures.

4. Establishes the inspection and maintenance tasks. For each facility to be maintained list the maintenance tasks necessary for ensuring the stability and function of the structure.

5. Identifies any deed covenants, restrictions, or easements on the site. Provide a descriptive list of any deed restrictions, covenants, or easements established for purposes of site drainage, runoff treatment, or facilities access. Provide a plan showing the location of each easement and each area under restriction or covenant.

6. Provides a maintenance log. Include an example page of the BMP maintenance log that will be kept on-site.

7. Supplies a copy of any contracts with third parties. If the site owner, operator, association, or municipal authority having maintenance responsibility will hire a third party to perform any maintenance, submit a copy of the completed contract with the third party.

B. Maintenance by a homeowner association. If a homeowner's association will be established for the maintenance of any commonly owned facilities or property, submit a charter meeting the following objectives in addition to those in section A above.

1. Incorporates the association. Provide for the incorporation of the association.

2. Establishes the association membership. Provide that each lot owner or lessee automatically becomes a member in the association.

3. Establishes fee assessment. Empower the association to assess reasonable fees for the maintenance of all common facilities.

4. Establishes lien system. Make an unpaid assessment a lien against a delinquent lot owner's or lessee's property.

5. Subjects amendments to department approval. Provide a specific reference indicating that the development is subject to the terms and conditions of the department or board order, including the number of that order when obtained from the department. Provide that any section(s) of the

homeowners association documents related to departmental or board requirements cannot be amended or otherwise altered without specific prior approval by the department.

6. Provides for a renewal of covenants and leases. Make any covenant or lease agreement automatically renewable at the end of its basic term.

C. Maintenance of facilities by a municipality or quasi-municipal district. If a municipality or municipal district will assume responsibility for all or part of the facilities maintenance, submit a municipally-approved plan that meets the following objectives in addition to those in section A above.

1. Provides evidence of acceptance. Provide evidence that the municipal authority or district board will accept responsibility for facilities maintenance in accordance with department standards and permit conditions.

2. Estimates annual expenditures. Provide an estimate of the annual cost to the municipality or district to perform the inspection and maintenance tasks.

D. General inspection and maintenance requirements. General maintenance requirements for drainage control and runoff treatment measures are listed below. Further information on the maintenance needs of stormwater management practices can be found in the Maine DEP's *Stormwater Management for Maine: Best Management Practices*.

1. Drainage easements. The maintenance plan must include yearly inspections and maintenance to remove any obstructions to flow, to control or prevent vegetated growth that could obstruct flow, and to repair any erosion within the easement corridor.

2. Ditches, culverts, and catch-basin systems. The maintenance plan must include yearly inspections and maintenance to remove any obstructions to flow, to remove any accumulated sediments within the structures, and to repair any erosion of channel linings, inlet protection, or outlet protection. Vegetated ditches must be mowed or otherwise maintained to control the growth of woody vegetation within the channel.

3. Roadways and parking surfaces. If pavement sweeping will be done, the maintenance plan must state the frequency and general timing (e.g. early spring) of the sweeping operations.

4. Stormwater detention and retention facilities. Every detention basin, pond, and infiltration basin built for the control or treatment of stormwater must have a maintenance plan developed by the design engineer. At a minimum, the maintenance plan must include the items listed below.

a. Embankment inspection and maintenance. Provide a description of the yearly inspections of the impoundment embankments to identify excessive settlement, slope erosion, internal piping, and downstream swamping. Identify the actions to be taken if any problems are found. Provide a mowing plan to prevent the growth of woody vegetation on the embankment.

b. Outlet inspection and clean out. Provide a description of the semi-annual inspection of the impoundment's outlet control structure to identify broken seals, obstructed orifices, plugged trash racks, and piping along the outlet barrel. Identify the actions to be taken if any problems are found. Provide for the removal and disposal of any sediments and debris within the control structure.

c. Spillway maintenance. Provide a description of the yearly maintenance necessary for the impoundment's emergency spillway. This may include the mowing of vegetated spillways to control woody vegetation or the repair of riprap spillways.

d. Sediment removal and disposal. Provide for the occasional removal and disposal of accumulated sediments within the impoundment and the impoundment's forebay (if any). The clean-out frequency ranges from five to twenty years, depending on the sediment load to the pond or basin.

5. Runoff infiltration facilities. Every infiltration facility built for the control or treatment of stormwater must have a maintenance plan approved by the department. The maintenance plan must include the items listed below.

a. Protection from sediments. Provide a plan for preventing the deposition of sediment into the basin. This includes a sediment control plan implemented during construction and a runoff pre-treatment plan implemented after construction. Describe how the construction sediment controls and pretreatment measures will be inspected and maintained to prevent excessive sediment reaching the infiltration area.

b. Infiltration rehabilitation. Provide a plan for the periodic renewal of the infiltration capacity to prevent clogging. Rehabilitation is generally necessary every three to ten years depending on the soil conditions, infiltration surface treatment, and sediment load to the infiltration measure. Generally, renewal is necessary if the basin fails to drain within 72 hours after a rainfall.

c. Sediment removal and disposal. Provide for the occasional removal and disposal of accumulated sediments within the infiltration area. The clean-out frequency ranges from two to ten years, depending on the sediment load to the infiltration measure.

d. Groundwater elevation monitoring. Provide for the observation of groundwater elevation below the infiltration area after every storm event exceeding one-half inch or more. These observations must be recorded in the maintenance log for the site.

6. Proprietary treatment devices. Provide a maintenance plan and contract for the removal of accumulated sediments, oils, and debris within the device, the replacement of any absorptive filters, or both. The frequency of sediment clean out and filter replacements must be consistent with the unit's storage capacity and the estimated pollutant load from the contributing drainage area**.**

7. Buffers. Provide a yearly inspection and maintenance plan to ensure the integrity and function of setback and treatment buffers on the site. Management of the buffer's vegetation must be consistent with the requirements in the deed restrictions for the buffers.

8. Other practices and measures. Contact staff in the department's Division of Watershed Management for assistance in developing inspection and maintenance requirements for other drainage control and runoff treatment measures installed on the site. The maintenance needs for most measures may be found in the Maine DEP's *Stormwater Management for Maine: Best Management Practices*.

Section 14. Erosion and sedimentation control.

A. Narrative. Provide a narrative describing the site's erosion potential and the measures to be employed to control erosion and sedimentation during construction and after completion of the development. At a minimum include the following information in the narrative.

1. Soil types. Describe the on-site soils giving a general description of each soil (e.g. loamy sand), its general location on the site and its erosion potential.

2. Existing erosion problems. Identify any existing erosion problems on the site and, if known, the cause of the erosion.

3. Critical areas. Identify areas on the site where extraordinary measures may be needed to prevent erosion (e.g. steep slopes, areas of concentrated flow, areas where vegetation will be difficult to establish, etc.). Identify any critical areas that will be protected from development or soil disturbance.

4. Protected natural resources. Identify all protected natural resources, as defined in 38 M.R.S.A. § 480 et. seq., located on the site and describe the measures that will be used to prevent erosion near them or to protect them from sedimentation (e.g. vegetated buffers, restrictions on crossing methods, restrictions on when crossing construction may be undertaken, etc.).

5. Erosion control measures. Describe the temporary and permanent erosion control methods to be employed on the site. ***An applicant seeking a planning permit need only identify those measures suitable for the site given the site's soils, topography, resources, hydrology and development schedule.***

6. Site stabilization. Describe the measures that will be used to stabilize the site. Give the expected date by which final stabilization of the site will be complete. ***An applicant seeking a planning permit need only identify those stabilization measures suitable for the site and may omit the expected date of final stabilization.***

B. Implementation schedule. Provide an implementation schedule for installing the erosion and sedimentation controls. Identify those controls that will be installed prior to clearing vegetation and those controls that will be installed prior to disturbing soil. Specifically state the time frames for installing each control (e.g. riprap aprons will be installed within two days of each culvert installation, sediment ponds will be constructed and stabilized at least two weeks prior to disturbing areas draining to them, etc.). If project construction will be undertaken between November 1 and April 1, in addition to specifically stating the time frame for installing each control, specifically state the time frame for stabilizing the site.

C. Erosion and sedimentation control plan. Provide a site plan showing the following information.

1. Contours. Show the existing and proposed contours in contrasting lines.

2. Plan elements. Include legend, north arrow, title block, revisions block and areas for professional stamps.

3. Land cover types and boundaries. Show the post-development cover types and their boundaries on the site.

4. Existing erosion problems. Show the locations of any existing erosion problems on the site.

5. Critical areas. Show areas on the site where extraordinary measures may be needed to prevent erosion (e.g. steep slopes, areas of concentrated flow, areas on which it will be difficult to establish vegetation, etc.). Identify any critical areas that will be protected from development or soil disturbance.

6. Protected natural resources. Identify all protected natural resources, as defined in 38 M.R.S.A. § 480 et. seq., located on the site and show the boundaries of any undisturbed vegetated buffers that will protect them.

7. Locations (general). Show the locations of all roads, lot boundaries, buildings, parking lots, material stockpiles, existing and proposed culverts, drainage channels, catch basins, subsurface drainage pipes and storm drain outfalls. ***An applicant seeking a planning permit for a development may delay showing these specific locations on the plan until plans for***

development within specific areas of the parcel are more complete. The department must approve the specific erosion and sedimentation controls for any area of the parcel before any activity under the planning permit begins in that area.

8. Locations of controls. Show the location of all temporary and permanent erosion controls to be installed on the site. ***An applicant seeking a planning permit may delay showing these specific locations on the plan until plans for development within specific areas of the parcel are more complete. The department must approve the specific erosion and sedimentation controls for any area of the parcel before any activity under the planning permit begins in that area.***

9. Disturbed areas. Show the limits of the areas disturbed by construction. ***An applicant seeking a planning permit may delay showing these specific limits on the plan until plans for development within specific areas of the parcel are more complete. The department must approve the specific erosion and sedimentation controls for any area of the parcel before any activity under the planning permit begins in that area.***

D. Details and specifications. Provide design drawings and specifications for the temporary and permanent erosion and sedimentation control measures to be used on the site. The drawings and details must be sufficiently detailed to allow a contractor unfamiliar with the controls to install and maintain them. The applicant is encouraged to choose appropriate measures for the site by utilizing the specifications and siting criteria in the Erosion *and Sediment Control Handbook for Construction: Best Management Practices* produced jointly by the Cumberland County Soil and Water Conservation District and the department. ***An applicant seeking a planning permit need only submit general designs and details. The submission of specific, engineered designs may be delayed until plans for development within specific areas of the parcel are more complete. The department must approve the specific erosion and sedimentation controls for any area of the parcel before any activity under the planning permit begins in that area.***

E. Calculations. Provide calculations for sizing, spacing or stabilizing each erosion and sedimentation control measure. These calculations must include analyses for determining the peak runoff flow to a control, its storage volume and its outlet design. The applicant is encouraged to design controls for the site utilizing the design methods and specifications in the *Erosion and Sediment Control Handbook for Construction: Best Management Practices* produced jointly by the Cumberland County Soil and Water Conservation District and the department. ***An applicant seeking a planning permit may delay submitting these calculations until plans for development within specific areas of the parcel are more complete. The department must approve the specific erosion and sedimentation controls for any area of the parcel before any activity under the planning permit begins in that area.***

F. Stabilization plan. Provide specifications for temporarily or permanently stabilizing areas disturbed during construction. This should include measures for re-vegetating or mulching areas of disturbed soil. If winter construction (November 1 to April 1) is proposed, provide winter construction specifications for temporarily or permanently stabilizing areas disturbed during construction.

1. Temporary seed. Include appropriate rates for loaming, seeding, fertilizing and mulching the disturbed areas. Give a spring start date and fall cut-off date for performing the temporary seeding.

2. Permanent seed. Include appropriate rates for loaming, seeding, fertilizing and mulching the disturbed areas. Give a spring start date and fall cut-off date for performing the permanent seeding.

3. Sod. Include the rates for loaming and fertilizing. Give a spring start date and fall cut-off date for installing the sod.

4. Temporary mulch. Include the appropriate rate for mulching the disturbed areas and the specifications for anchoring the mulch.

5. Permanent mulch. Include the appropriate application rate necessary to achieve the needed mulch depth.

G. Winter stabilization plan. Provide specifications for over-winter stabilization of disturbed areas. This should include measures for dormant seeding or winter mulching those areas not permanently stabilized by winter.

1. Dormant seed. If dormant seeding will be attempted, include appropriate rates for loaming, fertilizing, seeding and mulching disturbed areas not stabilized with vegetation or pavement.

2. Winter mulch. Include the appropriate rate for mulching the disturbed areas not stabilized with vegetation or pavement. Also include appropriate specifications for anchoring the mulch on slopes and wind-exposed areas.

H. Third-party inspections. The department may require third-party inspections of the development's erosion and sedimentation controls during construction and immediately after final stabilization. In all cases, the third party inspection program, to be implemented by the applicant, must comply with the "Special Condition for Third Party Inspection Program" that will be incorporated as part of the department order issued for the development.

References: No Adverse Effect Standard of the Site Location Law (Erosion and Sedimentation Control), 06-096 CMR 375.5, Planning Permit, 06-096 CMR 380, and Financial Capacity Standard of the Site Location Law (Technical Ability to Meet Air and Water Pollution Control Standards), 06-096 CMR 373.2.

Section 15. Groundwater

A. Narrative and report. Include the following:

1. Location and maps. Delineate project boundaries on copies of relevant sections of the following maps if available: Maine Geological Survey (MGS) Sand and Gravel Aquifer Map; MGS Surficial Geology map; and MGS Bedrock Geological map.

2. Quantity. Estimate of the quantity of groundwater (gal/day) to be used, discharged or otherwise extracted by the development. If adverse impacts of groundwater withdrawal including, but not limited to salt water intrusion, reduction of groundwater availability to existing or proposed water supplies or protected natural resources, as defined at 38 M.R.S.A. § 480-B, or land subsidence have been or can be a problem, provide a report by a certified geologist addressing the potential effects of the development on groundwater quantity.

3. Sources. Identification of all potential sources of contamination including, but not limited to wastewater, solid waste, hazardous materials, fuel, solvents or other chemicals handled, stored or disposed of on site. Normal household quantities of these substances need not be specifically listed. If a Phase I or Phase II environmental assessment has been required by a bank, insurance company or other financing agent include the results of this assessment.

4. Measures to prevent degradation. Description of the measures to be taken to prevent the degradation of existing ground water quality. Summarize the design, construction, operational and monitoring (if proposed) specifications and procedures to be followed. Monitoring may be required in certain cases including, but not limited to developments that propose storage or disposal of liquid or solid waste, wastewater, or fuel, or infiltration of stormwater. Monitoring may also be required in cases where salt-water intrusion or other activities related to extraction of on-site groundwater may

have an adverse impact on predevelopment water quality or quantity. Basic elements of a monitoring plan are outlined in subsection C below. This monitoring program must include monitoring of surface water quality, soils and other media if determined to be necessary by the department.

B. Groundwater protection plan. If a development will use or store petroleum products, pesticides, herbicides, fertilizer, road salt, solvents, acids or other materials with the potential to contaminate groundwater, provide a groundwater protection plan. The groundwater protection plan must include measures including, but not limited to: equipment design, operational procedures, preventive maintenance, construction techniques and materials, personnel training, spill response capabilities and spill prevention, control and countermeasures plans, alternative materials or processes, implementation of new technology, modification of facilities or equipment, best management practices, hazardous waste contingency plans, runoff or infiltration control systems and siting considerations. Specific exemptions for normal household quantities of these materials should be discussed at the pre-application meeting.

C. Monitoring plan. For a development required to monitor the quality and/or levels of surface water or groundwater, provide a water quality monitoring plan as a separate manual. This document must be prepared, signed and dated by a professional qualified in water chemistry interpretation and/or a certified geologist. The document must include the information listed below. If groundwater monitoring wells will be used, submit the information in subsection D.

1. Monitoring points. Identification and summary of all monitoring points (e.g. monitoring wells, lysimeters, springs, etc.) to be used for measurement of water level or for water quality analysis. Monitoring points must have an assigned identification symbol (alpha/numeric) and, as appropriate, elevation referenced to an established permanent benchmark. Include a map showing all monitoring points.

2. Monitoring frequency. Outline of the monitoring frequency at each monitoring point by the number of sampling/analysis events per year (e.g. quarterly, etc.) and by month (e.g. April, September, etc.).

3. Background water quality/levels. Provision for obtaining adequate data on background water quality and/or levels and for using a statistically valid method for determining a significant increase in parameter concentrations (e.g. contamination levels, but not necessarily MCL's/MEG's). At a minimum, determination of background water quality or levels must consist of quarterly monitoring for 1 year.

4. Monitoring parameters. List of parameters to be analyzed including references to the laboratory analysis methods to be utilized for each parameter, detection limits for each analysis method and the MCLs/MEGs for all applicable parameters. All monitoring must include field parameters (conductivity, temperature, pH and TDS), in addition to parameters specific to the monitoring program objectives.

5. Monitoring personnel qualifications. Identification of the qualified personnel responsible for taking water level measurements and water quality analysis samples. The applicant or employee of the applicant should not do these tasks, but, if proposed, then subsection 6 below must be addressed.

6. Proof of adequate training. Written certification from a qualified expert that the personnel conducting monitoring are or will be adequately trained to properly collect measurements and/or samples by approved methods and protocols.

7. Monitoring equipment and methods. Description of the equipment and methods to be employed for water level measurement and/ or water quality analysis sample taking.

8. Quality assurance/quality control and chain-of-custody protocols. Description of the quality assurance/quality control and chain-of-custody protocols to be followed for water quality sampling, preservation, storage, transport and laboratory analysis.

9. Reporting requirements. Provision to submit all data and analyses to the department annually, or at another schedule required by the department. Annual reports should present data in a tabular format including data from previous monitoring. In the event contamination is detected, or operational problems which could lead to contamination occur, the department must be notified immediately. Reports must be signed and dated by the professional responsible for their preparation.

10. Remedial action/mitigation plan. A provision that, if water levels or water quality monitoring results indicate adverse effects are occurring as a result of the project activity, then an evaluation will be made by a qualified professional and an appropriate remedial action and/or mitigation plan will be developed and submitted to the department for review and approval.

D. Monitoring well installation report. If an applicant is required to monitor groundwater level or quality, then locations, depths and construction details of monitoring wells or piezometers must be provided. Submit a report, endorsed by a certified geologist, containing a narrative which indicates the date each monitoring point was installed, the method of installation, the purpose and objectives of the monitoring network and a discussion on the basis for selection of monitoring well or piezometer locations and depths. Include the following information.

1. Well location map. A map showing final groundwater monitoring well or piezometer locations with identification symbols (alpha or numeric) for each monitoring point, including the location of the benchmark (BM) used to determine well or piezometer elevations and ground surface elevations. Include notes describing the BM, its reference elevation, and the name, title and address of the party responsible for establishing the BM.

2. Elevation data. Elevations (to the nearest tenth of a foot) of the following for each monitoring point: ground surface, top-of-casing (at the specific point on casing from which groundwater depth will be measured) and the top and bottom of the well/piezometer screen interval referenced to an identified BM. Elevations based on the NGVD of 1929 are preferable; however, an assumed datum may be used.

3. Well installation/measurement data. Measurements (to the nearest tenth of a foot) of the following for each monitoring point: depth to bottom of borehole and well casing from ground surface and height above the ground surface of top-of-casing (i.e. pipe "stickup" height).

4 Well construction details. Description of type and thickness of seals, texture of packing used around screened interval and diameter/specifications of well screen and casing.

5. Borehole logs. Borehole logs annotated by a certified geologist if a well driller recorded original logs.

6. Summary of groundwater depth measurements. Summary of depths and elevations measurements to phreatic or potentiometric groundwater surface.

7. Hydrogeologic characteristics of subsurface strata. Hydraulic conductivity of subsurface strata and associated field data and calculations. Include estimated time-of-travel from potential contamination sources to each monitoring point.

8. Well installation contract details. Copy of well/piezometer drilling and installation contract and specifications, if any.

9. Schematic cross section. The information outlined in subsections 2 through 6 above should be included in schematic cross-section diagrams for each monitoring point installed.

10. Monitoring point summary table. Include a summary table for all monitoring points, containing the monitoring point identification symbol, top-of-casing elevation, ground surface elevation and well/piezometer depth.

11. Protective casing. Provide protective steel casings with locking caps or other measures to protect the wells (e.g. near high-traffic areas, bollards may be necessary to further protect monitoring points).

12. On-site well identification. Permanent I.D. markings that include a tag inside the well cap and I.D. markings on the outside of the protective casing must be provided. A witness stake or flagging at each monitoring point or brightly painted casing should be considered so that monitoring points may be easily found, except in cases where vandalism is likely and subdued monitoring locations are more practical.

An applicant seeking a planning permit need only provide the maps required by Section 15(A) and a general statement indicating the approximate volume and nature of potential contaminants to be stored and used on-site. Specific details of the groundwater protection plan, groundwater monitoring plan and any potential discharges to groundwater may be delayed until plans for development are more complete.

Reference: No Adverse Environmental Effect Standard of the Site Location Law (No Unreasonable Adverse Effect on Surface Water Quality; No Unreasonable Adverse Effect on Ground Water Quality; No Unreasonable Adverse Effect on Ground Water Quantity), 06-096 CMR 375.6-8; and Planning Permit, 06-096 CMR 380.

Section 16. Water supply

A. Water supply method. Describe the method(s) by which drinking and process water will be supplied to the development.

1. Individual wells. An individual well is a well serving a single-family residence, such as a house or mobile home, or providing less than 300 gallons per day to a facility of any other type. If the use of individual wells is proposed, provide evidence from a certified geologist or a well driller knowledgeable about the development vicinity that a sufficient and healthful water supply is likely to be available for the development.

a. Support of findings by well driller. Support positive findings by a well driller with information including: number of wells established by the driller in the vicinity of the development; identification and locations of these wells on a site map such as a U.S.G.S. topographic map; the type and depths of the wells; the types and depths of soil and bedrock encountered at the well sites; water quality data from these wells (if available); and well yields. Supplement this information with data for the vicinity from the Maine Geological Survey (287-2801).

b. Support of findings by geologist. Support positive findings by a certified geologist with a report which summarizes and interprets hydrogeologic data for the region, correlated to the project site, and including on-site hydrogeologic data, if available, including the Maine Geological Survey database. Include available well drilling and water quality/quantity data.

2. Common well(s). A common well is an individual well or part of a group of wells providing water to more than one single-family dwelling, or to a facility requiring more than 300 gallons per day (gpd). If use of a common well or wells is proposed, provide the following:

a. Hydrogeology report. A report from a certified geologist indicating a sufficient and healthful water supply is likely to be available to the development that includes: information as outlined in subsection A.1.b above, a map showing recommended location of the common well or wells, and a determination of the risk of adverse effects on any off-site wells or protected natural resources (as defined in 38 M.R.S.A. § 480-B) due to groundwater withdrawal.

b. Engineering report. A report from a registered professional engineer that includes evidence indicating adequate provisions have or will be made for the proper long-term operation and maintenance of the water supply system, identification of the personnel responsible for that operation and maintenance, and design plans and detail sheets, as appropriate, for the water storage, treatment and distribution system.

c. Well installation report. A report stating the name of the well driller, giving the date the well was installed and including a map showing the actual installed location. The report will also include the well depth, well drilling log (describing strata found), well construction details (casing type/diameter, casing length, screen depth/length, etc.) and an estimate of the well yield for each well. If the well is not installed at the time of application submission, indicate a schedule for providing this information after the well or wells are established.

d. Long-term safe yield and zone-of-influence determination. If determined to be necessary by the department, submit a determination of the long-term safe yield of each well, including a prediction of operating levels and determination of the zone of influence and zone of capture for each well. Include any pump-test data and interpretation, monitoring data, proposed monitoring plan, or other information required by the department or the Department of Human Services' Drinking Water Program to assess these factors and the potential impact on existing wells and surface-water resources due to groundwater withdrawal.

e. Public water supply. A public water supply has at least 15 service connections or will regularly serve an average of 25 individuals daily for at least 60 days per year. If the common well or wells meet this definition, provide the following, as required for preliminary and final approval of community and non-community (transient and non-transient) public water supply wells by the Department of Human Services Drinking Water Program (DHS-DWP):

i. Proposed well or wells. If a well(s) does not exist at the time of application submission, provide a copy of the application and attachments required for preliminary approval by DHS-DWP and indicate a schedule for providing a copy of the application and attachments required for final DHS-DWP approval.

ii. Existing well or wells. If a well(s) is existing at the time of application submission, provide a copy of the application and attachments required for either after-the-fact approval by DHS-DWP, or for preliminary and final approval, as applicable.

3. Well construction in shallow-to-bedrock areas. For subdivisions where on-site water supply wells and subsurface wastewater disposal systems are proposed, include provisions for installing water supply wells with casing set and grouted a minimum of 20 feet below the solid bedrock surface in areas where bedrock is encountered at a depth of 10 feet or less.

4. Additional information. If the department considers that a sufficient and healthful water supply may not be provided by on-site wells, the following may be required: potability tests of water from

wells located in proximity to the site; establishment of one or more test wells on the site, pump tests of the well(s); and a report by a certified geologist indicating the yield and potability of water obtained from the well(s). A complete hydrogeologic assessment of groundwater quality and quantity may also be required.

5. Off-site utility company or public agency. Provide a letter from the supplier demonstrating that a sufficient and healthful water supply exists and may be utilized by the development.

6. Other sources. Describe any other sources of water supply and provide evidence of acceptable water quality and quantity.

B. Subsurface wastewater disposal. If water supply wells and subsurface wastewater disposal are to be handled on-site, and any proposed lots are less than 2 acres in size, identify the location of wells and footprints of on-site subsurface wastewater disposal fields at each lot. If water supply wells and subsurface wastewater disposal are to be handled on-site, demonstrate that there is sufficient room on each lot to locate water supply wells and on-site disposal systems, or make other provisions for water supply and wastewater disposal.

C. Total usage. Indicate the total anticipated water usage by the development (gallons/day).

For a planning permit, if water is supplied by an off-site utility, the applicant must submit a letter from the utility stating that it has adequate capacity to provide the maximum volume of water to be used by the facility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that utility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

If water is to be supplied on site, an applicant seeking a planning permit need only provide an estimate of the maximum water usage by the development at full build-out, an indication of the availability of sufficient quality of potable water on site and a statement of whether or not the on-site source will be a public water supply. Submission of specific information regarding the location, protection and potential impacts of water supplies may be delayed until plans for development are more complete.

Reference: Financial Capacity Standard of the Site Location Law (Adequate Provision for Securing and Maintaining Sufficient and Healthful Water Supplies), 06-096 CMR 373 and Planning Permit, 06-096 CMR 380.

Section 17. Wastewater disposal

A. On-site subsurface wastewater disposal systems. If sewage disposal will be by subsurface wastewater disposal systems, provide the results of an on-site investigation by a licensed site evaluator and, if required by subsection B, a certified geologist, including the following information as applicable.

1. Site plan. A site plan showing site topography, boundaries and outline of proposed facilities; location of all test pits, borings and existing or proposed monitoring wells, with corresponding numbers or other identifying alphanumeric code; water supply wells at and on property adjacent to the site; proposed subsurface wastewater disposal field locations including boundaries of fill extensions for systems on slopes greater than 10% and any common or shared disposal systems. Note that additional information may be required by subsection B (3)(b).

2. Soil conditions summary table. Soil conditions summary table including all subsurface investigations and indicating lot number, exploration identification symbol, soil profile/condition, depths to limiting factors, disposal area sizing factor, proposed type of disposal system and

disposal field size. Use copies of Form E, Part III. Borings and probes are acceptable only to address subsection A (4).

3. Logs of subsurface explorations. Logs of all subsurface explorations (test pits, borings, probes, etc.) evaluated in conducting any on-site investigation, signed and dated by a licensed site evaluator. Boring logs, if monitoring wells are required by subsection B, must be annotated by a certified geologist if a well driller initially recorded logs. Use copies of Form F, Part III for site evaluator test pit profile logs.

4. Additional subsurface explorations. A sufficient number of test pits must be provided within the footprints of all proposed wastewater disposal fields to adequately document that disposal fields can be installed entirely on soils and slopes in compliance with the Subsurface Wastewater Disposal Rules (10-144A CMR 241). Provide additional subsurface exploration data for certain soil conditions or disposal field designs, as outlined by the following:

a. Soil condition AIII (bedrock depth less than 24"). A minimum of 5 subsurface explorations: test pits, borings or probes located at all 4 corners of the proposed disposal fields, plus a test pit centrally-located within disposal field footprints.

b. Soil with profile 8 or 9-parent material (lacustrine/marine deposits). A minimum of 2 test pits: each test pit to be located near each end of disposal field footprints.

c. Soil condition D (limiting factor depth less than 15"). A minimum of 2 test pits: each test pit to be located near each end of disposal field footprints.

d. Disposal field length of 60 feet or longer. A minimum of 2 test pits: each test pit to be located near each end of disposal field footprints.

5. 3-bedroom design. For proposed residential subdivisions, investigations of soil areas for suitability for subsurface wastewater disposal and delineation of disposal system footprints at each lot must consider that all proposed subsurface wastewater disposal systems will accommodate a wastewater flow volume generated by a 3-bedroom single family dwelling, as an assumed minimum, unless common or engineered systems are proposed.

6. Larger disposal systems. If sewage disposal is to be provided by one or more systems serving 2 or more residences or with design flow(s) greater than 270 gallons per day, provide the following additional information if determined to be necessary by the department. Note that approval by the Department of Human Services' Division of Health Engineering is also required for systems with design flows of 2000 gallons or more per day, and that disposal of any wastewater other than normal domestic sanitary wastewater or the equivalent may require a Waste Discharge License from the Division of Water Resource Regulation. Department of Human Services' approval does not provide an exemption from the requirements of Subsection B of this section, or other water quality requirements determined to be applicable by the department.

a. System design details. Provide design flow criteria, system sizing calculations and indicate system type (e.g. trench, bed, chambers, etc.), and other relevant information including materials specifications and installation details.

b. Plan view. Plan view showing the layout of the system including limits of the disposal field and backfill extensions, piping network, chamber arrangements within each system (if applicable), septic tank(s), pump/dosing chamber(s) (if applicable), direction of ground surface slope, description/locations of benchmarks (elevation reference points), locations of control points for determining disposal field location on-site and identification/labeling of disposal system components.

c. Cross-sections. Cross-sections of the proposed disposal field(s) showing details such as proposed elevations, fill depths, limits of backfill extensions, thickness/depth of disposal fields and identification/labeling of disposal system components.

d. Test pit data. Provide sufficient test pit data to verify that adequate soils exist for the entire dimensions of the proposed disposal system. At a minimum, a licensed site evaluator must provide test pit profile data from each corner and a central point within the proposed field or fields. In addition, provide ground surface elevations, referenced to a benchmark or elevation reference point, at all test pits located within the disposal field footprint(s).

e. Mounding analysis. For engineered systems, provide a mounding analysis by a registered professional engineer of the expected localized rise in the saturated zone in order to determine that an adequate vertical separation distance is specified in the system design between the bottom of the disposal field and any mounded water table.

B. Nitrate-nitrogen impact assessment

1. When required. For all subsurface wastewater disposal systems proposed at the development, provide an assessment report by a certified geologist of the effect of nitrate-nitrogen (NO_3-N) on groundwater quality, demonstrating that the concentration of NO_3-N in contaminant plumes from the on-site disposal systems will not exceed 10 mg/l at the downgradient project boundary, or at any existing/proposed water supply well located downgradient of the systems.

a. Exemptions. The following subsurface wastewater disposal systems are exempt from a NO_3-N impact assessment requirement:

i. Conventional disposal systems: Systems disposing of less than 300 gallons per day (gpd) of domestic wastewater (as defined in the Maine Subsurface Wastewater Disposal Rules, 10-144A CMR 241), if setbacks are maintained between disposal fields and downgradient project boundaries, or downgradient existing or proposed water supply wells, as determined by the soil profile and geologic conditions, according to the following table:

Distance to Downgradient Project Boundary or Wells	**Soil Profile & Condition***	Geologic Conditions
300 feet or more	soil condition A	bedrock depth at 36 inches or less
300 feet or more	soil profiles 4, 5, or 6	ablation till and stratified drift
200 feet or more	all other suitable profiles	deep tills, marine, and lacustrine deposits

***** As classified by Table 600.1 of the Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

ii. Denitrification systems. Acceptable setbacks between disposal fields and downgradient project boundaries, or existing or proposed water supply wells to be determined from research data showing efficiency of the system design in reducing total nitrogen in the wastewater.

b. Special conditions and other exemptions. The department reserves the right to require a NO_3-N impact assessment for disposal systems described in subsection B.1.a above, if

conditions warrant, as determined at a pre-application meeting. The department may exempt larger individual disposal systems, and common and engineered systems, from the NO_3-N assessment requirement, on a case-by-case basis, provided that compliance with the intent of this subsection can be demonstrated.

2. Assumptions. Assumptions include but may not be limited to the following.

a. Initial concentration. For conventional systems, assume that NO_3-N initially enters the groundwater at a concentration of 40 mg/l. For denitrification systems or conventional systems that include a denitrifying component or components, the initial NO_3-N concentration must be determined on a case-by-case basis from valid field test data provided by the designer and/or manufacturer of the proposed denitrification system.

b. Background concentration. In lieu of on-site water quality analyses, assume a background groundwater NO_3-N concentration of 2.0 mg/l provided that the site is undeveloped and no adjacent development exists upgradient of the site, unless the department or the investigating geologist suspects that the background NO_3-N concentration in the groundwater is greater. Water quality data from off-site or on-site wells may be acceptable provided that the samples are determined by the department to be reasonably representative of shallow groundwater quality conditions at the site.

c. Contribution from development. For residential developments with lawns, or other developments such as golf courses or recreational areas with large grassed areas, assume that the contribution of fertilizer to groundwater NO_3-N is 5% of nitrogen applied, based on an application rate of 0.45 pounds nitrogen per 100 square feet, with 6,000 to 15,000 square feet of applied area per lot in a residential development unless other application rates and areas apply.

d. Mixing and dilution. If dilution by precipitation is assumed as part of the assessment, assume an average concentration of 0.5 mg/l for NO_3-N in precipitation. Use the tables below to determine the percentage of the annual precipitation available for dilution as a function of surficial geologic deposits or hydrologic soil groups.

i. Recharge rates determined by surficial geology units

Surficial Geology unit	Average Annual Recharge Rate (percentage of annual precipitation)
ice-contact and outwash sand & gravel	40% to 50%
glaciomarine clay/silt	5% to 15%
thick silty lodgement till	5% to 15%
thick coarse-grained (granite-derived) till	15% to 40%
thin sandy till-like soil over bedrock	5% to 20%

ii. Recharge rates determined by slope and hydrologic soil group

Slope (%)	Average Annual Recharge Rate (percentage of annual precipitation by hydrologic group)			
	A	B	C	D
0 to 8	43%	33%	21%	0%
8 to 15	35%	26%	19%	0%
15 to 25	27%	21%	17%	0%
> 25	21%	17%	14%	0%

Recharge rates for shallow upland soils underlain by fractured bedrock which are designated in hydrologic soil group D are determined according to geologic properties, rather than the hydrologic soil group.

Selection of the appropriate recharge rate at a site depends on factors such as the nature, density and duration of the post-development vegetative cover, the ground surface slope, the degree of ground surface roughness and the soil drainage class, in addition to the type of surficial deposit.

e. Severe-drought scenario. In cases where the projected NO_3-N contaminant plume concentration at the development boundary is greater than or equal to 8.0 mg/l, analyze nitrate impact under a severe-drought scenario based on 60% of the average annual recharge. Contaminant plume concentrations may not exceed 10 mg/l at the property boundary under this scenario.

f. Wastewater flow to subsurface wastewater disposal fields. Wastewater flow to subsurface wastewater disposal systems is based on the design flow criteria of the Subsurface Wastewater Disposal Rules, 101-144A CMR 241 unless water-use records for establishments (other than single family dwellings) are provided in accordance with those rules. For single family dwellings, the NO_3-N impact assessment must be based on wastewater flow for 3-bedroom capacity as an assumed minimum.

3. Assessment report minimum requirements

a. Narrative and calculations. Provide a report evaluating all relevant hydrogeologic, geologic and soils information for the study area. Include previously published data; an explanation of the method(s) used to determine the impact of the disposal systems; the assumptions used and evidence supporting those assumptions; all calculations; background groundwater quality data if available; a summary of the results and conclusions; and a list of references used.

b. Site plan. In addition to the information required by subsection A (1), show the following on the site plan.

i. Optimum locations for all proposed water supply wells (if applicable). Well locations may be shown as areas rather than points.

ii. 10 mg/l and 8 mg/l NO_3-N isocons at steady-state conditions, and when appropriate, the nitrate concentrations at the property boundary.

iii. Groundwater contours and groundwater flow divides if on-site monitoring of groundwater depths is conducted.

4. Denitrification systems. If denitrification systems are proposed, provide the following.

a. Design plans and specifications. Design plans, including system layout, elevation, and cross-sections for the proposed systems, and specifications including wastewater design flow, treatment method and material specifications in addition to documents containing relevant theoretical considerations and applied research relevant to the system and a list of references used in completing the design.

b. Installation information. Information demonstrating that the designer or manufacturer of the system, or other qualified and experienced professional acceptable to the department, will oversee installation.

c. Monitoring plan. A groundwater and wastewater monitoring plan developed by a certified geologist to evaluate the performance of the system. Details to be provided in a monitoring plan are outlined in Section 15(C).

d. Maintenance requirements. Identification of maintenance requirements for the system(s), and an operation and maintenance plan for the system(s). Provisions must be made to provide a copy of this plan to any homeowner with a denitrification system.

e. Backup system. Demonstration that a suitable backup system can be installed in the event of a malfunction of the denitrification system. A reserve area with suitable soil conditions must be delineated on the plan and be reserved for replacement of the system. Soil profile data must be submitted to verify suitable soil conditions in the reserve area.

C. Municipal facility or utility company letter. If a municipal facility or utility company will provide sewage disposal, provide a letter from the municipal facility acknowledging that there is sufficient collection and treatment capacity, and stating that the municipality agrees to accept the amount and nature of the wastewater flow from the development. The site plan must locate the proposed connection to the existing sewer system. If the project includes an extension of the existing sewer collection system, the plans and specifications regarding that extension must be included or be supplied at a later date. If the project includes a new pump station, the plans and specifications regarding that pump station must also be included or be supplied at a later date. A sewer extension involves the construction of a new sewer intended to pick up new lateral connections; reviews are required for both public and private extensions. A single discharge pipe from one building to an existing sewer is not considered a sewer extension. See 38 M.R.S.A. § 361.

D. Wastewater discharge information. If the development will discharge any liquid waste into any stream, river, pond, lake or other body of water including tidal waters, describe the type of discharge, volume of discharge and body of water affected.

A Wastewater Discharge License from the Bureau of Land and Water Quality, Division of Water Resource Regulation, may be required. For further information contact the Bureau of Land and Water Quality (287-3901).

E. Storage or treatment lagoons. If the development will include any lagoons, impoundments, ponds, or similar structures for storage, treatment, infiltration or other functions involving water or liquid waste other than solely stormwater, submit information describing the proposed design of these facilities, including but not limited to: a site plan showing the location of the proposed structure; cross-sections and relevant design details; depth to groundwater and groundwater flow direction in the vicinity of the proposed structure, proposed liner details and liner installation plan, if applicable; and a groundwater monitoring plan (see Sections 15.C and 15.D).

For a planning permit, if wastewater treatment is provided by an off-site utility, the applicant must submit a letter from the utility stating that it has adequate capacity to provide the maximum volume of wastewater to be generated by the facility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that utility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

If on-site disposal of wastewater is proposed, an applicant seeking a planning permit need only provide an estimate of the maximum wastewater to be generated by the development at full build-out, an indication of the availability of sufficient soils for on-site wastewater disposal, and/or sufficient area for construction of wastewater treatment facilities, and a statement of whether or not a wastewater discharge license will be required. If the applicant anticipates that a

wastewater discharge license will be required, and that discharge will be to a surface water body, the applicant must identify that surface water and provide information demonstrating that the maximum proposed discharge will not result in a violation of its classification. Submission of specific information regarding the location of wastewater treatment and disposal facilities and potential impacts of wastewater disposal may be delayed until plans for development are more complete.

Reference: No Adverse Environmental Effect Standard of the Site Location Law (No Unreasonable Adverse Effect on Surface Water Quality), 06-096 CMR 375.6 and Planning Permit, 06-096 CMR 380.

Section 18. Solid waste. List the types and estimated quantities (cu. yd.) of solid waste to be generated by the development. Types of waste may include, but not be limited to, stumps/grubbings, construction debris, demolition debris, household solid waste, industrial solid wastes, special wastes and hazardous wastes. Indicate the method of collection (e.g. private, municipal or commercial) and the location of the solid waste disposal facility for each waste listed. If waste from the site is taken to a transfer station, identify the facility or facilities at which the waste is ultimately disposed.

A. Commercial solid waste facility. If intending to use a commercial solid waste facility, attach copies of contracts or commitment letters covering the hauling and disposal of the solid waste for at least one year following the date of the department order.

For a planning permit, the applicant must submit a letter from the facility stating that it has adequate capacity to handle the maximum volume of solid waste to be sent to the facility at full build-out, presuming full build-out within the year following approval, through at least the next five years, given reasonably anticipated changes in demand on that facility from other sources during that time. If a construction schedule is established as a condition of the permit, an alternate demonstration of adequate capacity may be approved.

B. Off-site disposal of construction and/or demolition debris. If intending to dispose of construction and/or demolition debris off-site, attach copies of contracts or commitment letters covering the hauling and disposal of this debris for one year from the date of the department order.

C. On-site disposal of woodwaste or land clearing debris. If any stumps, grubbings, or other wood waste or land clearing debris is to be disposed of on-site, the applicant must comply with 38 M.R.S.A. § 1301 et. seq. and all applicable sections of the Solid Waste Management Rules in effect at the time of the application. There are provisions within the Solid Waste Management Rules to exempt the processing of certain landclearing debris as described in 06-096 CMR 409.

Delineate the disposal area on the site plan. Disclosure of the on-site disposal of construction debris, landclearing debris and burn area ash to future owners may be required under 02 CMR 330 Section 19 and may require notice within the property deed(s).

If wood wastes are to be burned on-site, show the burn area on the site plan and provide exclusion plans for materials prohibited from being burned (including chemically treated wood, plastics, vinyl, asphalt shingles, etc). On-site burning cannot create a nuisance condition and requires local fire permits. Provide plans for handling both unburned wood waste and woodash, including the name of the licensed or exempt solid waste facility that will be used for disposal of the ash and unburned materials and the name of the licensed or exempt transporter who will transport the materials to the proposed solid waste facility. If applicable, include evidence of capacity to accept the waste from an approved solid waste facility or a plan outlining the usage of these materials in landscaping and reclamation of the site. Include information on ash/topsoil mixing ratios and application rates. Any proposed open burning must comply with the Rules for Open Burning, 06-096 CMR 102.

D. Special or Hazardous Waste. Certain developments may generate or require disposal of special or hazardous wastes, as defined at 06-096 CMR 400.1. Contact the Bureau of Remediation and Waste Management (287-2651) for information regarding the handling of these materials.

References: Financial Capacity Standard of the Site Location Law (Adequate Provision for Solid Waste Disposal), 06-096 CMR 373.3 and Planning Permit, 06-096 CMR 380.

Section 19. Flooding. Provide an explanation as to whether this development will or will not cause or increase flooding or cause an unreasonable flood hazard to any structure. Show the 100-year flood elevation on the site plan. If required by the department, provide a hydrological analysis showing that the development will not adversely affect the 100-year flood elevation. If available, include a copy of the applicable Federal Emergency Management Agency (FEMA) flood zone map. Show the development's boundaries on this map.

An applicant seeking a planning permit should analyze the flooding potential based on the anticipated maximum build-out of the development parcel. The department may require further analyses of the flooding potential when the development plans for specific areas of the parcel are more complete.

Reference: Flooding Standard of the Site Location Law (No Unreasonable Effect on Runoff Infiltration Relationships), 096 CMR 375.4

Section 20. Blasting. If the development requires blasting of rock or other earth materials for road construction, foundations or any other purpose provide the following information.

A. Site plan. A site plan indicating proposed blast areas at the project site and locations of all off-site structures and wells not owned or controlled by the applicant within 2000 feet of any blast site unless a lesser distance is approved in writing by the department.

B. Report. A report prepared by a qualified professional that includes the following.

1. Assessment. Assessment of the potential for adverse effects of blasting on protected natural resources and structures and wells not owned or controlled by the applicant considering, at a minimum, ground vibration, peak particle velocities, noise and airblast effects and on-site and off-site ground and surface water quality and quantity.

2. Blasting plan. Provide a blasting plan which addresses methods to control adverse effects from ground vibration, airblast and flyrock; provides details on the proposed blast design, monitoring of blasts (as applicable), a blast schedule; and includes provisions for pre-blast surveys, signage, warnings, and access control during blast events.

Section 21. Air emissions. Provide a narrative identifying all point source and non-point source air emissions deriving from the development, including but not limited to stacks, unpaved roads or areas and vehicular traffic. For point sources, include a summary of emission components showing types and amounts of particulate matter (particles) and all gaseous components.

An Air Emissions License from the Bureau of Air Quality (Air Bureau) may be required. For further information contact the Air Bureau at 287-2437. If an Air Emission License is necessary, a Site Law permit may not be issued until the Air Emission License is obtained or the Air Bureau indicates, in writing, that it is likely to be obtained.

Reference: No Adverse Environmental Effect Standard of the Site Location Law (No Unreasonable Adverse Effect on Air Quality), 06-096 CMR 375.1.

Section 22. Odors. Identify the nature and potential sources of odors from the development, if the development will create any significant odors. Provide an estimate of areas affected and methods of control.

Reference: Financial Capacity Standard of the Site Location Law (Adequate Provision for the Control of Odors), 06-096 CMR 373.4.

Section 23. Water vapor. Provide a narrative identifying any potentially large scale water vapor emission from the development, such as that resulting from a processing plant or power generating facility, which may cause a change in local climate. Identify all sources and amounts of such emissions associated with the development, and all abutting areas impacted by the water vapor emissions.

Reference: No Adverse Effect Standard of the Site Location Law (No Unreasonable Alteration of Climate), 06-096-CMR 375.2.

Section 24. Sunlight. Provide a statement concerning whether or not any structures will block access to direct sunlight for structures utilizing solar energy through active or passive systems.

Reference: No Adverse Environmental Effect Standard of the Site Location of Development Law (Access to Direct Sunlight), 06-096 CMR 375.13.

Section 25. Notices. Provide the following.

A. Evidence that notice has been sent. Complete and provide Form D, located in Part III of this application.

B. List of abutters for purposes of notice. Provide a list of the names and addresses of the owners of abutting property.

PART III. FORMS

PAGE

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-2111

FOR DEP USE
ATS #_____
L- _____
Total Fees: _____
Date: Received _____

FORM A PAGE 1 02/02

****

PERMIT APPLICATION
SITE LOCATION OF DEVELOPMENT LAW, 38 M.R.S.A. § § 481-490

Please type or print:

This application is for (check the one that applies):

20 acre development	☐	Structure	☐
Planning Permit	☐	Subdivision	☐
Metallic Mining	☐	Amendment	☐
Marine Oil Terminal	☐		

Name of Applicant:_____

Address: _____Telephone/Fax:_____

Name of local contact or agent: _____

Address: _____ Telephone/Fax: _____

Name of development: _____

Location of development including road, street, or nearest route number: _____

_____

For entrance road (if available): UTM Northing_____UTM Easting _____

City/Town/Plantation: _____, County: _____, Tax Map #_____, Lot #_____

Type of development: _____

Was this development started prior to obtaining a license? _____ Is this development or any portion of the site currently subject to enforcement action? _____

Will a Natural Resources Protection Act (NRPA) permit be required for this project? _____ Has the NRPA permit application (PBR, Tier, full NRPA) been submitted as part of this application? _____

Will a Traffic Permit be required for this project? _____ Has the Maine Department of Transportation been contacted? _____

Is the development located in the watershed of a body of water most at risk or in a sensitive or threatened region or watershed? _____ If yes, which one? _____

Existing DEP permit number (if applicable): _____

Name(s) of department staff person(s) present at the pre-application meeting:

_____

Name(s) of department staff person(s) otherwise contacted concerning this application:

_____

CERTIFICATION

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for development approval is complete and accurate to the best of his/her knowledge.

Signature: _____

Name (print): _____

Date: _____

Re/Cert/Lic No.: _____
Engineer _____
Geologist _____
Soil Scientist _____
Land Surveyor _____
Site Evaluator _____
Active Member of the Maine Bar _____
Professional Landscape Architect _____
Other _____

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

_____ _____
Signature of applicant Date

FORM B 02/02

SUBMISSIONS CHECKLIST

If a provision is not applicable, put "NA"

Section 1. Development description

A. Narrative

____ 1. Objectives and details

____ 2. Existing facilities (with dates of construction)

B. Topographic map

____ 1. Location of development boundaries

____ 2. Quadrangle name

C. Construction plan

____ 1. Outline of construction sequence (major aspects)

2. Dates

D. Drawings

____ 1. Development facilities

____ a. Location, function and ground area

____ b. Length/cross-sections for roads

____ 2. Site work (nature and extent)

____ 3. Existing facilities (location, function ground area and floor area)

4. Topography

____ a. Pre- and post-development (contours 2 ft or less)

____ b. Previous construction, facilities and lot lines

____ **Section 2. Title, right or interest** (copy of document)

Section 3. Financial capacity

____ A. Estimated costs

B. Financing

____ 1. Letter of commitment to fund

2. Self-financing

____ a. Annual report

____ b. Bank statement

3. Other

____ a. Cash equity commitment

____ b. Financial plan

____ c. Letter

____ 4. Affordable housing information

Section 4. Technical ability (description)

____ A. Prior experience (statement)

____ B. Personnel (documents)

Section 5. Noise

____ A. Developments producing a minor noise impact (statement)

____ 1. Residential developments

____ 2. Certain non-residential subdivisions

____ 3. Schools and hospitals

____ 4. Other developments

____ a. Type, source and location of noise

____ b. Uses, zoning and plans

____ c. Protected locations

____ d. Minor nature of impact
____ e. Demonstration
____ B. Developments producing a major noise impact (full noise study)
____ 1. Baseline
____ a. Uses, zoning and plans
____ b. Protected locations
____ c. Quiet area
____ 2. Noise generated by the development
____ a. Type, source and location of noise
____ b. Sound levels
____ c. Control measures
____ d. Comparison with regulatory limits
____ e. Comparison with local limits

____ **Section 6. Visual quality and scenic character**(narrative, description, visual impact analysis)

____ **Section 7. Wildlife and fisheries** (narrative)

____ **Section 8. Historic sites** (narrative)

____ **Section 9. Unusual natural areas** (narrative)

Section 10. Buffers

____ A. Site plan and narrative

Section 11. Soils

____ A. Soil survey map and report
____ 1. Class A (High intensity) Soil Survey
____ 2. Class B (High intensity) Soil Survey
____ 3. Class C (Medium High-Intensity) Soil Survey
____ 4. Class D (Medium Intensity) Soil Survey
____ B. Geotechnical investigation
____ C. Hydric soils mapping

Section 12. Stormwater management

____ A. Narrative
____ 1. Development location
____ 2. Surface water on or abutting the site
____ 3. Downstream ponds and lakes
____ 4. General topography
____ 5. Flooding
____ 6. Alterations to natural drainage ways
____ 7. Alterations to land cover
____ 8. Modeling assumptions
____ 9. Water quantity control
____ 10. Water quality treatment
____ 11. Off-site credits
____ 12. Compensation fees
____ 13. Development impacts
____ B. Maps
____ 1. U.S.G.S. map with site boundaries
____ 2. S.C.S. soils map with site boundaries
____ C. Drainage Plans (a pre-development plan and a post-development plan)
____ 1. Contours

____ 2. Plan elements
____ 3. Land cover types and boundaries
____ 4. Soil group boundaries
____ 5. Stormwater quantity subwatershed boundaries
____ 6. Stormwater quality subwatershed boundaries
____ 7. Watershed analysis points
____ 8. Hydrologic flow lines
____ 9. Runoff storage areas
____ 10. Roads and drives
____ 11. Buildings, parking lots, and other facilities
____ 12. Drainage system layout for storm drains, catch basins, and culverts
____ 13. Natural and man-made open drainage channels
____ 14. Wetlands
____ 15. Flooded areas
____ 16. Benchmark
____ 17. Stormwater detention, retention, and infiltration facilities
____ 18. Stormwater treatment facilities
____ 19. Drainage easements

____ D. Runoff analysis (pre-development and post development)
____ 1. Curve number computations
____ 2. Time of concentration calculations
____ 3. Travel time calculations
____ 4. Peak discharge calculations
____ 5. Reservoir routing calculations

____ E. Stormwater quantity control plan
____ 1. Variance submissions (if applicable)
____ a. Submissions for discharge to the ocean, great pond, or major river
____ i. Map
____ ii. Drainage plan
____ iii. Drainage system design
____ iv. Outfall design
____ v. Easements
____ b. Submissions for discharge to a buffer
____ i. Road and buffer plan
____ ii. Ditch turn-out designs and calculations
____ iii. Buffer restrictions or easments
____ c. Submissions for discharge to a public stormwater system
____ i. Letter of permission
____ ii. Proof of capacity
____ ii. Outfall analysis and design
____ 2. Sizing of storm drains and culverts
____ 3. Stormwater ponds and basins
____ a. Impoundment sizing calculations
____ b. Inlet calculations
____ c. Outlet calculations
____ d. Emergency spillway calculations
____ e. Subsurface investigation report
____ f. Embankment specifications
____ g. Embankment seepage controls
____ h. Outlet seepage controls
____ i. Detail sheet
____ j. Basin cross sections
____ k. Basin plan sheet
____ 4. Infiltration systems

____ a. Well locations map
____ b. Sand and gravel aquifer map
____ c. Subsurface investigation report with test pit or boring logs
____ d. Permeability analysis
____ e. Infiltration structure design
____ f. Pollutant generation and transport analysis
____ g. Monitoring and operations plan
____ i. Locations of storage points of potential contaminants
____ ii. Locations of observation wells and infiltration monitoring plan
____ iii. Groundwater quality monitoring plan
____ 5. Drainage easement declarations.
____ F. Stormwater quality treatment plan peak discharge calculations
____ 1. Basic stabilization plan
____ a. Ditches, swales, and other open channel stabilization
____ b. Culvert and storm-drain outfall stabilization
____ c. Earthen slope and embankment stabilization
____ d. Disturbed area stabilization
____ e. Gravel roads and drives stabilization
____ 2. 80% TSS removal plan
____ a. Calcualtions for TSS removal achieved for each site subwatershed
____ 3. Sliding scale TSS removal plan
____ a. Impervious area calculation
____ b. Determination of the required TSS removal
____ c. Calculations for TSS removal achieved for each site subwatershed
____ 4. Phosphorus control plan
____ a. Calculations for the site's allowable phosphorus export
____ b. Calculations for determining the developed site's phosphorus export
____ c. Calculations for determining any phosphorus compensation fees
____ 5. Offset Credits
____ a. TSS credit determination
____ i. Location map
____ ii. Scaled plan
____ iii. Title and right
____ iv. Demolition plan
____ v. Vegetation plan
____ vi. Offset credit calculation
____ vii. New treatment level calculation
____ b. Phosphorus credit determination
____ i. Location map
____ ii. Scaled plan
____ iii. Title and right
____ iv. Demolition plan
____ v. Vegetation plan
____ vi. Offset credit calculation
____ vii. Calculation for the new allowable export
____ 6. Runoff treatment measures
____ a. structural measures
____ i. Design drawings and specifications
____ ii. Design calculations
____ iii. Maintenance plan
____ iv. TSS removal or phosphorus treatment factor determinations
____ v. Stabilization plan
____ b. Vegetated buffers
____ i. Soil survey

ii. Buffer plan
iii. Turnout and level spreader designs
iv. Deed restrictions

7. Control plan for thermal impacts to coldwater fisheries
8. Control plan for other pollutants
9. Engineering inspection of stormwater management facilities

Section 13. Maintenance of common facilities or property

A. Components of the maintenance plan

1. Maintenance of facilities by owner or operator
   a. Site owner or operator
   b. Contact person responsible for maintenance
   c. Tranfer mechanism
   d. List of facilities to be maintained
   e. List of inspection and maintenance tasks for each facility
   f. Identifications of any deed covenants, easements, or restrictions
   g. Sample maintenance log
   h. Copies of any third-party maintenance contracts
2. Maintenance of facilities by homeowner's association
   a. Incorporation documents for the association
   b. Membership criteria
   c. Association officer responsible for maintenance
   d. Establishment of fee assessment for maintenance work
   e. Establishment of lien system
   f. Reference to department order(s) in association charter
   g. Tranfer mechanism from developer to association
   h. List of facilities to be maintained
   i. Identification of any deed covenants, easements, or restrictions
   j. Renewal of covenants and leases
   k. List of inspection and maintenance tasks for each facility
   l. Sample maintenance log
   m. Copies of any third-party maintenance contracts
3. Maintenance of facilities by municipality or municipal district
   a. Identification of the municipal department or utility district
   b. Contact person responsible for maintenance
   c. Evidence of acceptance of maintenance responibility
   d. Tranfer mechanism from developer
   e. List of facilities to be maintained
   f. List of inspection and maintenance tasks for each facility
   g. Identifications of any deed covenants, easements, or restrictions
   h. Sample maintenance log

B. General inspection and maintenance requirements

1. Drainage easements
2. Ditches, culverts, and catch-basin systems
3. Roadways and parking surfaces
4. Stormwater detention and retention facilities
   a. Embankment inspection and maintenance
   b. Outlet inspection and clean-out
   c. Spillway maintenance
   d. Sediment removal and disposal
5. Stormwater infiltration facilities
   a. Sediment protection plan
   b. Infiltration rehabilitation plan
   c. Sediment removal and disposal

____ d. Groundwater monitoring plan
____ 6. Proprietary treatment devices
____ 7. Buffers
____ 8. Other practices and measures

Section 14. Erosion and Sedimentation Control

____ A. Narrative
____ 1. Soil types
____ 2. Existing erosion problems
____ 3. Critical areas
____ 4. Protected natural resources
____ 5. Erosion control measures
____ 6. Site stabilization
____ B. Implementation schedule
____ C. Erosion and sediment control plan
____ 1. Pre-development and post-development contours
____ 2. Plan scale and elements
____ 3. Land cover types and boundaries
____ 4. Existing erosion problems
____ 5. Critical areas
____ 6. Protected natural resources
____ 7. Locations (general)
____ 8. Locations of controls
____ 9. Disturbed areas
____ D. Details and specifications (for both temporary and permanent measures)
____ E. Design calculations
____ F. Stabilization plan
____ 1. Temporary seeding
____ 2. Permanent seeding
____ 3. Sodding
____ 4. Temporary mulching
____ 5. Permanent mulching
____ G. Winter construction plan
____ 1. Dormant seeding
____ 2. Winter mulching
____ H. Third-party inspections
____ 1. Inspector's name, address, and telephone number
____ 2. Inspector's qualifications
____ 3. Inspection schedule
____ 4. Contractor contact
____ 5. Reporting protocol

Section 15. Groundwater

____ A. Narrative
____ 1. Location and maps
____ 2. Quantity
____ 3. Sources
____ 4. Measures to prevent degradation
____ B. Groundwater protection plan
____ C. Monitoring plan
____ 1. Monitoring points
____ 2. Monitoring frequency
____ 3. Background conditions
____ 4. Monitoring parameters

____ 5. Personnel qualifications
____ 6. Proof of training
____ 7. Equipment and methods
____ 8. Quality assurance/quality control
____ 9. Reporting requirements
____ 10. Remedial action plan
____ D. Monitoring well installation report
____ 1. Well location map
____ 2. Elevation data
____ 3. Well installation data
____ 4. Well construction details
____ 5. Borehole logs
____ 6. Summary of depth measurements
____ 7. Characteristics of subsurface strata
____ 8. Well installation contract
____ 9. Schematic cross-sections
____ 10. Monitoring point summary table
____ 11. Protective casing
____ 12. On-site well identification

Section 16. Water supply

____ A. Water supply method
____ 1. Individual wells (evidence of sufficient/healthful supply)
____ a. Support of findings by well drillers
____ b. Support of findings by geologist
____ 2. Common well(s) (reports)
____ a. Hydrogeology report
____ b. Engineering report
____ c. Well installation report
____ d. Long-term safe yield and zone of influence determination
____ e. Public water supply
____ i. Proposed well or wells
____ ii. Existing well or wells
____ iii. Water quality analysis
____ 3. Well construction in shallow-to-bedrock areas
____ 4. Additional information
____ 5. Off-site utility company or public agency
____ 6. Other sources
____ B. Subsurface wastewater disposal systems (locations of systems and wells)
____ C. Total usage (statement re: total anticipated water usage)

Section 17. Wastewater disposal

____ A. On-site subsurface wastewater disposal systems (investigation results)
____ 1. Site plan
____ 2. Soil conditions summary table
____ 3. Logs of subsurface explorations
____ 4. Additional test pits, borings or probes
____ a. Soil conditions A
____ b. Soils with Profiles 8 and 9 parent material
____ c. Soil conditions D
____ d. Disposal field length 60 feet or greater
____ 5. 3-bedroom design
____ 6. Larger disposal systems
____ a. System design details

____ b. Plan view
____ c. Cross sections
____ d. Test pit data
____ e. Mounding analysis
____ B. Nitrate-nitrogen impact assessment
1. When required
____ a. Exempted____
i. Conventional systems meeting certain setbacks
____ ii. Denitrification systems
____ b. Special conditions and other exemptions
____ 2. Assumptions
____ a. Initial concentration
____ b. Background concentration
____ c. Contribution from development
____ d. Mixing and dilution
____ e. Severe-drought scenario
____ f. Wastewater flow to subsurface wastewater disposal fields
3. Assessment report minimum requirements
____ a. Narrative and calculations
____ b. Site plan
____ i. Well locations
____ ii. 10 mg/l and 8 mg/l isocons
____ iii. Groundwater contours and groundwater flow divides
____ c. References
4. Denitrification systems
____ a. Design plans and specifications
____ b. Installation information
____ c. Monitoring plan
____ d. Maintentance
____ e. Backup system
____ D. Municipal facility or utility company letter
____ E. Storage or treatment lagoons

____ **Section 18. Solid waste** (list: type, quantity, method of collection and location)
____ A. Commercial solid waste facility (final disposal location)
____ B. Off-site disposal of construction/demolition debris (final disposal location)
C. On-site disposal of woodwaste/land clearing debris
____ 1. Applicability of rules (evidence re: applicability of rules)
2. Burning of wood wastes
____ a. Delineation on site plan
____ b. Plans for handling unburned woodwaste and woodash
____ c. Evidence of capacity to accept waste (approved facility)
____ d. Usage of materials
____ e. Data on mixing ratios and application rates
____ D. Special or Hazardous Waste

Section 19. Flooding
____ A. Explanation of flooding impact
____ B. Site plan showing 100-year flood elevation
____ C. Hydrology analysis
____ D. FEMA flood zone map with site boundaries

Section 20. Blasting
____ A. Assessment

____ B. Blasting plan

Section 21. Air emissions (narrative and summary)

____ A. Point and non-point sources identified

____ B. Emission components (point sources)

Section 22. Odors

____ A. Identification of nature/source

____ B. Estimate of areas affected

____ C. Methods of control)

____ **Section 23. Water vapor** (narrative)

____ **Section 24. Sunlight** (statement and drawing, if required)

Section 25. Notices

____ A. Evidence that notice sent

____ B. List of abutters for purposes of notice

FORM C 02/02

PUBLIC NOTICE:
NOTICE OF INTENT TO FILE

Please take notice that

_____
(*Name, Address and Phone of Applicant*)
_____

is intending to file a Site Location of Development Act permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § § 481 thru 490 on or about _____
(*anticipated filing date)*

The application is for

_____
(description of the project)
_____

_____
at the following location:

_____
(*project location*)
_____

A request for a public hearing or a request that the Board of Environmental assume jurisdiction over this application must be received by the Department, in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the processing of the application.

For Federally licensed, permitted, or funded activities in the Coastal Zone, review of this application shall also constitute the State's consistency review in accordance with the Maine Coastal Program pursuant to Section 307 of the federal Coastal Zone Management Act, 16 U.S.C. § 1456. (Delete if not applicable.)

The application will be filed for public inspection at the Department of Environmental Protection's office in (*Portland, Augusta or Bangor*)(circle one) during normal working hours. A copy of the application may also be seen at the municipal offices in

_____, Maine.
(*town*)

Written public comments may be sent to the Department of Environmental Protection, Bureau of Land and Water Quality, 17 State House Station, Augusta, Maine 04333-0017.

_____

FORM D 02/02

NOTICE CERTIFICATION

By signing below, the applicant (or authorized agent) certifies that he or she has

1. Published a Notice of Intent to File once in a newspaper circulated in the area where the project site is located within thirty days prior to the filing of the application;

2. Sent by certified mail a completed copy of the Notice of Intent to File to the owners of the property abutting the land upon which the project site is located within thirty days prior to the filing of the application;

3. Sent by certified mail a completed copy of the Notice of Intent to File and filed a duplicate of this application with the town clerk or city clerk of the municipality(ies) where the project is located; and

4. Provided notice of and held a public informational meeting in accordance with Chapter 2, Rules Concerning the Processing of Applications, Section 8, prior to filing the application. Notice of the meeting was sent by certified mail to abutters and to the town clerk or city clerk of the municipality(ies) where the project is located at least 10 days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least 7 days prior to the meeting. (NOTE: A Public Informational Meeting is not required for residential subdivisions with 20 or fewer developable lots.)

Approximately _____ members of the public attended the Public Informational Meeting.

_____ _____

Signature of Applicant Date

_____

Print name and title of Applicant

If signature is other than that of the applicant, attach letter of agent authorization signed by applicant.

INSERT FORM E

INSERT FORM F

FORM G 02/02

SOIL AND WATER CONSERVATION DISTRICT OPTIONAL REVIEW

Date: _____

Applicant's name: _____

Address: _____

Project name: _____

Project location: _____

As part of my DEP application, pursuant to the Site Location of Development Law (Site Law) 38 M.R.S.A. § § 481-490, I request that the Conservation District indicated below review (a) Erosion and Sedimentation Control submissions and (b) Stormwater Management submissions. I will enter into an agreement with the District for their review services.

Check one:

____ Androscoggin Valley SWCD

____ Cumberland County SWCD

____ Oxford County SWCD

____ York County SWCD

_____
Signature of Applicant

FORM H1-02/02

DECLARATION OF RESTRICTIONS **(Non-Wooded Buffer)**

THIS DECLARATION OF RESTRICTIONS is made this ____day of _____, 200__, by
_____ , _____ , _____ ,
(name) (street address) (city or town)
_____ , County, Maine, _____ , (herein referred to as the "Declarant"),
(county) (zipcode)
pursuant to a permit received from the Maine Department of Environmental Protection under the Site Location of Development Act, to preserve a buffer area on a parcel of land near_____,
_____.
(road name) (known feature and/or town

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed described in a deed from _____
(name)
to _____ dated _____, 200__, and recorded in Book ____ (name of declarant)
Page ____at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Site Location of Development Act, 38 M.R.S.A. Section 481 through 490, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Site Location of Development Act and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor may the topography or the natural mineral soil of the area be altered or manipulated in any way;

b. A dense cover of grassy vegetation must be maintained over the Restricted Buffer Area, except that shrubs, trees and other woody vegetation may also be planted or allowed to grow in the area. The Restricted Buffer Area may not be maintained as a lawn or used as a pasture. If vegetation in the Restricted Buffer Area is mowed, it may be mown no more than three times per year, to a height of no less than 6 inches.

c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;

d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area, except for vehicles used in mowing;

e. Any level spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. Enforcement. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

(NAME)

_____

STATE OF MAINE

_____, ss _____, 200__.
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

FORM H2 –02/02

DECLARATION OF RESTRICTIONS **(Wooded Buffer, No Disturbance)**

THIS DECLARATION OF RESTRICTIONS is made this ____day of _____, 200__, by
_____ , _____ , _____ ,
(name) (street address) (city or town)
_____ , County, Maine, _____ , (herein referred to as the "Declarant"),
(county) (zipcode)
pursuant to a permit received from the Maine Department of Environmental Protection under the Site Location of Development Act, to preserve a buffer area on a parcel of land near_____,
_____.
(road name) (known feature and/or town

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed described in a deed from _____
(name)
to _____ dated _____, 200__, and recorded in Book ____ (name of declarant)
Page ____at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Site Location of Development Act, 38 M.R.S.A. Section 481 through 490, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Site Location of Development Act and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor shall the topography of the area be altered or manipulated in any way;

b. No trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

c. No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

d. No building, sign, fence, utility pole, or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area;

e. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

f. Any level spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. Enforcement. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

(NAME)

_____

STATE OF MAINE
_____, ss _____, 200__.
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

FORM H3 –02/02

DECLARATION OF RESTRICTIONS **(Wooded Buffer, Limited Disturbance)**

THIS DECLARATION OF RESTRICTIONS is made this ____day of _____, 200__, by
_____ , _____ , _____ ,
(name) (street address) (city or town)
_____ , County, Maine, _____ , (herein referred to as the "Declarant"),
(county) (zipcode)
pursuant to a permit received from the Maine Department of Environmental Protection under the Site Location of Development Act, to preserve a buffer area on a parcel of land near_____,
_____.
(road name) (known feature and/or town

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed described in a deed from _____
(name)
to _____ dated _____, 200__, and recorded in Book ____ (name of declarant)
Page ____at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer area location here)

WHEREAS, pursuant to the Site Location of Development Act, 38 M.R.S.A. Section 481 through 490, Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Site Location of Development Act and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material may be placed, stored or dumped on the Restricted Buffer Area, nor may the topography of the area be altered or manipulated in any way;

b. Any removal of trees or other vegetation within the Restricted Buffer Area must be limited to the following:

(1) No purposefully cleared openings may be created and an evenly distributed stand of trees and other vegetation must be maintained. An "evenly distributed stand of trees and other vegetation" is defined as maintaining a minimum rating score of 12 points in any 25 foot by 25 foot square (625 square feet) area, as determined by the following rating scheme:

Diameter of tree at 4½ feet above ground level	Points
2 - 4 inches	1
4 - 12 inches	2
>12 inches	4

Where existing trees and other vegetation result in a rating score less than 12 points, no trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

(2) No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

c. No building, sign, fence, utility pole, or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area;

d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

e. Any level spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. Enforcement. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each

owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

(NAME)

_____

STATE OF MAINE
_____, ss _____, 200__
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

FORM I 02/02

DEED OF CONSERVATION EASEMENT

THIS GRANT DEED OF CONSERVATION EASEMENT is made this_____day of _____ , 200__ by _____, of the Town of _____ , _____County, Maine, (hereinafter referred to as the "Grantor"), **[**in favor of _____ **or** the Town of _____, Maine**]** (hereinafter referred to as the "Holder") and The State of Maine by and through its Department of Environmental Protection, (hereinafter referred to as the "Third Party").

WITNESSETH

WHEREAS this Indenture is created pursuant to Title 33, Maine Revised Statutes, Sections 476 through 479-B, inclusive, as amended; and

WHEREAS the Grantor holds title to certain real property situated in _____, Maine (hereinafter referred to as the "Property") described **[**in a recorded deed **or** on a recorded plan**]** at the_____ County Registry of Deeds; and further described **[**as follows: **or** in exhibit A attached hereto.**]**

WHEREAS the Property remains in a substantially undisturbed natural state and has significant aesthetic and ecological value, in particular, **[**here describe the conservation purposes of the easement**]** ; and

WHEREAS, the Grantor and the Holder, recognizing the value of the Protected Property as described above, have the common purpose of conserving the natural values of the Property by the conveyance of a Conservation Easement over the Property, which easement shall benefit, protect and conserve the natural values of the Property, conserve and protect the indigenous animal and plant populations, and prevent the use or development of the Property for any purpose or in any manner that would conflict with its natural, scenic condition; and

WHEREAS the Third Party will receive Third Party Rights of Enforcement under this Deed;

NOW, THEREFORE, in consideration of the foregoing and the covenants, terms, conditions, and restrictions herein contained, the Grantor hereby GRANTS to the Holder, its successors and assigns, as an absolute and unconditional gift, forever and in perpetuity, with Warranty Covenants, a Conservation Easement in gross over the Property as set forth herein (the "Conservation Easement"); and to the Third Party, its successors and assigns, as an absolute and unconditional gift, forever and in perpetuity, rights of enforcement hereunder.

l. PURPOSE: It is the purpose of this Easement to assure that the Property will be retained forever in its natural undeveloped condition and to prevent any use of the Protected Property that will significantly impair or interfere with the conservation values of the Property. Grantors intend that this Easement will confine the use of the Property to such activities as are consistent with the purpose of this Easement.

2. RIGHTS OF HOLDER: To accomplish the purpose of this Easement the following rights are conveyed to the Holder by this easement:

a. the right to preserve and protect the conservation values of the Property;

b. the right to enter and inspect the Property over other lands of the Grantor at any reasonable time and in any reasonable manner provided that the time and manner of such entry does not unreasonably interfere

with the uses of the Property permitted hereunder or the quiet enjoyment of other lands of Grantor, and to enforce by proceedings at law or in equity the covenants hereinafter set forth, including the right to require restoration of the Property to its condition prior to any breach hereof; and

c. the right to prevent any activity on or use of the Property that is inconsistent with the purpose of this Easement and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to paragraph 6.

3. USE OF THE PROPERTY: The Property shall be used for limited recreational and conservation purposes only. No commercial, industrial, quarrying or mining activities shall be permitted on the Property. No structures or facilities of any kind whatsoever shall be constructed on the Property, except walking paths designed in keeping with the natural scenic quality of the Property. No motor vehicles of any kind, including recreational vehicles, all-terrain vehicles motorcycles, dirt bikes and snowmobiles shall be permitted on the Property, except in emergency and when necessary to accomplish the rights reserved by Grantor and Holder, their successors and assigns. No filling, paving, dumping, excavation or other alteration shall be made to the surface of the Property other than that caused by the forces of nature. Any activity on or use of the Property inconsistent with the purposes of this Easement is prohibited.

4. RESERVED RIGHTS: Grantors reserve to themselves, and to their personal representatives, heirs, successors, and assigns, all rights accruing from their ownership of the Property, including the right to engage in, or permit or invite others to engage in, all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Easement. Without limiting the generality of the foregoing, the following rights are expressly reserved:

a. The right of the Grantors, their guests, employees and invitees, to use the Property for recreational purposes which may include hiking, picnicking, bird watching, camping, tenting and any other use that is not expressly prohibited above or destructive to the natural values to be conserved herein.

b. The right to advertise the Property for sale or rent and to convey the Property, always subject to the terms of this Conservation Easement.

5. CUTTING OF TIMBER AND VEGETATION: The destruction or removal of standing timber, plants, shrubs or other vegetation shall not be permitted, except however, there are retained in the Grantor the following rights:

a. The right to clear and restore forest cover and other vegetation that is damaged or destroyed by the forces of nature, such as fire or disease and, with the prior written approval of the Holder and the Third Party, when necessary to prevent the spread of disease.

b. The right to clear and restore forest cover and other vegetation, in the event of an emergency, when necessary to prevent the spread of fire.

c. The right to gather, use or remove dead wood.

6. RIGHTS OF THE THIRD PARTY: The Grantors hereby grant to the Third Party the same inspection and enforcement rights as are granted to the Holder under this easement. However the Parties hereto intend that the Holder shall be primarily responsible for the enforcement of this Easement, and that the Third Party will assume such responsibility only if the Holder shall fail to enforce it. If the Third Party shall determine that the Holder is failing in such enforcement, the Third Party may give notice of such failure to the Holder and the Grantors, and if such failure is not corrected within a reasonable time thereafter, the Third Party may exercise, in its own name and for its own account, all the rights of enforcement granted the Holder under this Easement.

The Third Party shall also have reasonable access to any and all records of the Holder relevant to the Protected Property.

7. CONSTRUCTION: If uncertainty should arise in the interpretation of these restrictions, judgment should be made in favor of conserving the Property in its natural, open, and scenic condition.

The Grantor agrees to bear all costs and responsibility of operation, upkeep, and maintenance of the Property and to pay any and all real property taxes and assessments levied by competent authority on the Property and does hereby relieve, indemnify and hold harmless the Holder therefrom.

The Grantor has provided the Holder with sufficient information to determine the condition of the Property as of the effective date hereof and has certified that such information is an accurate representation of the same.

8. SUCCESSORS: The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property.

9. TERMINATION OF RIGHTS AND OBLIGATIONS: A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

TO HAVE AND TO HOLD the said Conservation Easement unto the said Holder and its successors and assigns forever and the said Third Party Rights unto the said Third Party and its successors and assigns forever.

GRANTOR'S SIGNATURE

IN WITNESS WHEREOF, the said grantor, _____ has hereunto set his/her hand and seal this _____day of _____, 200__ .

_____
By:

NOTARIZATION OF GRANTOR'S SIGNATURE

HOLDER'S ACCEPTANCE

The above and foregoing Conservation Easement was authorized to be accepted by _____, Holder as aforesaid, and the said Holder does hereby accept the foregoing Conservation Easement, by and through _____, its, hereunto duly authorized, this ____day of _____, 200__.

_____
By:
Its:

NOTARIZATION OF GRANTOR'S SIGNATURE

THIRD PARTY ENFORCER ACCEPTANCE

The third party rights of enforcement granted under the above and foregoing Conservation Easement, pursuant to Title 33 M.R.S.A Section 476 et seq., were authorized to be accepted by the State of Maine Department of Environmental Protection by _____, its Director of the Bureau of Land & Water Quality, hereunto duly authorized and the said _____ does hereby accept the foregoing Conservation Easement this_____day of _____, 200___.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____
Its: Director, Bureau of Land & Water Quality